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ABSTRACT

This packet contains an instructor's manual, instructor's resource package, and student workbook for a competency-based course on nutrition for practical nursing. The course consists of two units of instruction that cover applying principles of basic nutrition and diet therapy. Each unit contains some or all of the following components: objective sheet, instructor's guide, information sheet, instructional supplement, assignment sheet, job sheet and skill test record, written test, answers to assignment sheets and written test, transparency masters, learning activity package sheet, handouts, and other materials. Units are designed to be used for more than one class period. A basic skills documentation matrix correlates skills with units of instruction. (KC)

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CIMC

Teacher Edition

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Oklahoma Department of Vocational and Technical Education
1500 West Seventh Avenue
Stillwater, OK 74074-4364

HO1032

Nutrition

Instructor's Manual

Upfront

Instructor's Guide

Answers

Test Code Sheets

Instructional Supplement

Developed by the
Curriculum and Instructional Materials Center
for the Division of Health Occupations
Oklahoma Department of Vocational and Technical Education

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Curriculum and Instructional Materials Center

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One set per unit of the following components:

- Instructor's Guide
- Answers
- Test Code Sheets

Instructional Supplement (one set for all units)

Instructor's Resource Package

One set per unit of the following components:

- LAP Sheet
- Transparency Masters
- Written Test
- Other required media

Student Workbook

One set per unit of Objective Sheets, Information Sheets, Assignment Sheets, and Job Sheets for the following units:

UNIT 1
- Applying Principles of Basic Nutrition 1-1

UNIT 2
- Applying Principles of Diet Therapy 2-1

FOREWORD

This publication is one of the courses from the Practical Nursing series of competency-based training programs designed to coordinate the job related experience and knowledge needed by personnel working in a practical nursing position.

The information found in each of the courses in the Practical Nursing series will help you in planning and implementing a current, practical approach to learning. Although this series reflects a systematic approach to instructional materials development and the latest in educational technology innovations, the instructor should adapt and modify information in the Practical Nursing series to coincide with local conditions and specific student/client needs.

Roy Peters, Jr.
State Director
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Vocational and Technical Education

Gail Pearson
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ACKNOWLEDGMENTS

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Oklahoma Department of Vocational and Technical Education Health Occupations Education staff who provided leadership and direction on this project also deserve special recognition.

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Others who deserve recognition for their work on this publication are: Tracy Boyington, Technical Communication Specialist, for revising the text; Lisa Tillman, LPN, for her technical review of the material, and Ann Johnston, for her editing work.

Only through the close cooperation of the Curriculum and Instructional Materials Center staff was this curriculum developed. Sincere thanks are shared with the CIMC team leaders.

John Friedemann
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Special recognition and thanks are also extended to other individuals within the Oklahoma Department of Vocational and Technical Education: Rose Primeaux, Margie Kirkendall, and the rest of the Word Processing staff; Darrelll Stiles and his staff at the CIMC Warehouse; Danny Darrow and the entire staff at the ODVTE Print Shop; and Bob Davis and the artists in the ODVTE Art Department.

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USE OF THIS PUBLICATION

INSTRUCTIONAL UNIT

Each unit of instruction is based on the performance needed for successful employment in an occupational area. *Nutrition* contains two units of instruction. A complete unit may contain most or all of the following components: Objective Sheet, Instructor's Guide, Information Sheet, Instructional Supplement, Assignment Sheet, Job Sheet (and Skill Test Record), Written Test, Answers (to Assignment Sheets and Written Test), Transparency Masters, Learning Activity Package (LAP) Sheet, Handouts, and other required media. These components are organized within three packages, as follows:

Instructor's Manual

- Upfront pages (title page, copyright page, table of contents, foreword, preface, acknowledgments, measuring student performance gains, required criteria for a competency-based education program, and corrections and suggestions)
- Curriculum and Duty/Task Crosswalk (as appropriate)
- Basic Skills Matrix
- One set per unit of:

  Instructor's Guide
  Answers
  Test Code Sheets

- Instructional Supplement (one set for all of the basic skills enablers appearing in the book)

Instructor's Resource Package

- One set per unit of:

  LAP Sheet
  Transparency Masters
  Written Test

  ☑ **NOTE:** The three components listed above may be photocopied by the instructor.

- Handouts (as appropriate)
- Other required media (as appropriate)

Student Workbook

- Objective Sheets
- Information Sheets
- Assignment Sheets
- Job Sheets

Instructor's materials include the *Instructor's Manual*, the *Instructor's Resource Package*, and the *Student Workbook*.

Unit components are tied to measurable and observable learning outcomes. Instructor's are encouraged to supplement unit components with other resources to make units as responsive to local conditions and student needs as possible.

Most units of instruction are designed for use in more than one lesson or class period. Instructors should determine the following for each unit:

- amount of material that can be covered in each class period;
- skills that must be demonstrated;
- supplies and equipment needed;
- amount of class time needed for demonstrations;
- amount of class time needed for student practice;
- supplementary materials to be ordered; and
- resource persons who must be contacted.

Objective Sheet (Student Workbook)

The Objective Sheet summarizes each unit for the student and the instructor. The Objective Sheet includes the following sections:

Introduction – This section introduces students to the unit topic and its importance to them. The Introduction also relates the unit to students' experiences and their "need to know"; it helps capture their interest and focus their attention on the specific topic.

Prerequisites – This section is included if any of the units in the book have prerequisites. A prerequisite may be one or more units from the same book or from other books, which must be completed before beginning the unit. (If no prerequisites exist for any of the units in the book, this section is omitted.)

Focus Assignments – Each unit has two Focus Assignments: Prereading and Writing. The Prereading assignment requires the student to read appropriate sections from unit references, from the *Instructor's Resource Package*, or from the student's textbook. The Prereading assignment leads into the Writing assignment, which assigns students a short written activity based on the Prereading assignment. Because the Focus Assignments help promote the use of basic skills, they include appropriate basic skill icons and enablers. (Activities for the basic skills associated with the Focus Assignments are included in the Instructional Supplement in the Instructor's Manual.)

Unit Objective – The Unit Objective states the overall goal of the unit. It identifies what the student will be able to do after successfully completing the unit, as well as the standards used to measure student performance.

Specific Objectives – The Specific Objectives outline the teaching sequence of the competencies required to reach the Unit Objective.

The Specific Objectives on the Objective Sheet should be emphasized to all students at the start of each unit and throughout the teaching/learning process. This will help answer student questions about performance requirements for each unit. Specific Objectives can also assist instructors in determining teaching strategies and instructional methods. Instructors should prepare for each unit by deciding how each objective could best be taught.

Instructors should modify, delete, or add objectives to meet the needs of students and the community. When objectives are added, the instructor should remember to provide the needed information, Assignment and/or Job Sheets, and criterion-referenced test items.

Information Sheet (Student Workbook)

The Information Sheet provides the "must know" content essential for meeting the cognitive objectives in the unit. Information is usually presented in print on the Information Sheet, but may also be presented in other formats, if appropriate, such as on videotape, software, or other media. (Additional formats for presenting the Information Sheet objectives allow this component to be interactive.)

Many objectives on the Information Sheet begin with a "Words You Should Know" section. This boxed item identifies terms relating to the objective, and gives a definition for each. Terms in the "Words You Should Know" boxes are tested only indirectly with the objective information (not on the Written Test as a matching exercise).

The Information Sheet may include clarifying NOTES and EXAMPLES, as needed. In the left column, students and instructors are reminded of the optional and/or required activities and resources available for a particular objective.

Students should read the Information Sheet for each unit before it is discussed in class. Space is provided in the margins for both students and instructors to add notes that clarify and/or expand upon the information presented.

Assignment Sheets (Student Workbook)

The Assignment Sheets address the learning levels at or above the application level of Bloom's taxonomy. They allow students to perform non-psychomotor activities related to occupational tasks. Assignment Sheets also provide students with an opportunity to use higher-order thinking skills, such as problem-solving, synthesizing, analyzing, and evaluating. In addition, they may provide opportunities for cooperative learning and more detailed oral/written communication activities.

Assignment Sheet activities can be "paper and pencil" activities, as well as those using computer software, videotapes, models, handouts, or other resources as appropriate. All Assignment Sheets include basic skills icons and enablers (identified in the left margin).

Job Sheets (Student Workbook)

Job Sheets gives students step-by-step procedures for performing manipulative or psychomotor occupational tasks or jobs. The Job Sheet also functions as a Skill Test Record, facilitating the instructor's evaluation of each student's performance. Both the process and the end-product are evaluated. Diagrams, illustrations, and photographs are included, as needed, to assist students in completing the job.

Individual Job Sheets may include various warnings written to conform to the latest specifications of the American National Standards Institute (ANSI). DANGER is used if the situation *will* lead to death or serious injury if not avoided; WARNING is used if the situation *could* lead to death or serious injury if not avoided; CAUTION is used if the situation could lead to minor or moderate injury; NOTICE is used if the situation could cause property damage only; and IMPORTANT is used to refer to operating or maintenance tips. Each type of warning appears on the Job Sheet with an ANSI symbol.

The instructor should demonstrate the procedure outlined in each Job Sheet. Instructors may also have to localize specific procedures.

Instructor's Guide (Instructor's Manual)

The Instructor's Guide leads instructors step by step, objective by objective through the unit. It recommends instructional strategies for the Focus Assignments and for each of the Specific Objectives. Resources and activities are labeled "R" for "Required" or "O" for "Optional." Optional and Required resources (publications, videos, computer software, and other media) are listed, as well as unit references. These resources can be used to supplement the instructor's knowledge of the subject area and to help students with particular interests or occupational objectives. In addition, the Instructor's Guide provides guidelines for evaluating student performance.

Instructors should study the Instructor's Guide before introducing the unit and allow time to obtain supplemental materials, prepare audiovisual materials, and contact outside resource persons. Specific tasks of the instructor will vary with each unit.

Answers (Instructor's Manual)

This component lists the answers to all of the Assignment Sheets and the Written Test questions.

Test Code Sheet (Instructor's Manual)

The Test Code Sheet matches Written Test questions to objectives. Basic skills codes are listed in chart format for each question. Each unit has a Test Code Sheet. For more information, see the CIMC publication *Measuring Learning & Competency Gains: The Pretest/Posttest Approach.*

Instructional Supplement (Instructor's Manual)

The Instructional Supplement provides the instructor with strategies for teaching the *basic skills identified on the Focus Assignments*, Assignment Sheets, and Job Sheets. One Instructional Supplement applies to all of the basic skills identified in all of the units of instruction in a book.

LAP Sheet (Instructor's Resource Package)

The LAP (Learning Activity Package) Sheet for each unit allows the instructor to individualize instruction for some or all students. The LAP Sheet guides the student through each unit step by step, ensuring that the student receives the necessary instruction.

Transparency Masters (Instructor's Resource Package)

Transparency Masters are provided so that instructors can make transparencies to accompany specific units. Transparencies allow students to *see* as well as hear the information being presented, thus reinforcing the learning process. They also direct attention to the topic under discussion. Transparencies should be made from the Transparency Masters and placed where they will be readily available when needed. Transparencies should be left on the screen only when the related topics are under discussion.

Each Transparency Master also appears in the appropriate unit in the Student Workbook, at the location where the information is referenced (such as a Figure on the Information Sheet).

Written Test (Instructor's Resource Package)

The Written Test provides criterion-referenced evaluation of the Specific Objectives from the Information Sheet (Assignment Sheet and Job Sheet objectives are not evaluated by the Written Test). If instructors have added, deleted, or modified any objectives, appropriate changes should be made to the Written Test as well.

The Written Test serves as both a pretest and a posttest. In order to measure and document student competency gains as required by the latest Carl Perkins regulations, and as outlined in the Oklahoma-developed system of standards and measures, it is *essential* that the same test be used as a pretest and as a posttest. If instructors choose to use tests other than the Written Test, they should make sure that the same instrument is used for each activity pre- and posttest.

The Written Test may be photocopied for classroom use, or additional copies may be ordered from the CIMC by calling 1-800-654-4502, or (in Oklahoma) 1-800-522-5810, ext. 589.

A detailed explanation of the Oklahoma plan for standards and measures and the Carl Perkins requirements is included in the CIMC publication *Measuring Learning & Competency Gains: The Pretest/Posttest Approach.* This booklet — and accompanying software to assist in calculating and recording student gains — are available to Oklahoma instructors through their school's vocational testing liaison.

To further assist instructors, the CIMC develops Test Code Sheets for each Written Test in its more recent publications, including this one. (These sheets are explained in detail in the publication mentioned above.) The Test Code Sheets assist in verifying that the Written Test is a valid instrument for measuring student learning and competency gains.

COMPETENCY PROFILES

A Competency Profile is available from the CIMC. Competency Profiles document student performance. Each profile lists the specific competencies covered in the book, and provides space for recording the student's level of performance on each competency.

PAGE NUMBERING

Each unit and each page in a CIMC publication has a number, shown in arabic numerals. The page number gives the package title, the book title, the component name, the unit number, and the page number within the unit. For example, the page number for page 1 in Unit 2 of the *Student Workbook* would appear as follows:

STUDENT WORKBOOK — Nutrition
OBJECTIVE SHEET - **CIMC** - 2 - 1

METHODS OF DISSEMINATING MATERIAL

For best results, provide each student with a copy of the Student Workbook. Students should be allowed to keep their Workbooks at the end of the course or training program.

TEACHING METHODS

Keeping students motivated is a challenge. Supplement each unit with current information, personal experiences, and other information. In a group setting, prepare for each unit by determining the best way to teach each objective, and allow for student input. For individualized instruction, provide opportunities for the student to become involved in planning and being responsible for his or her own education.

BASIC SKILLS IN CURRICULUM

The CIMC has always been mindful of the importance of reinforcement (and sometimes remediation) of students' academic skills as they progress through vocational training, and has always included activities in its materials to enhance and promote use of these skills.

Recent state and federal legislation mandates vigorous basic skills development in vocational education in the wake of demands by industry that workers *must* be academically, as well as technically, competent, given the nature of the highly complex work place. In response, the CIMC has taken the following steps to document that, indeed, the instructional materials *do* combine academic skills training with the vocational training. In addition, concerted efforts have been made to "beef up," or enhance the basic skills instruction already present. Following is a brief description of those processes:

Basic Skills Icons and Enablers

To assist teachers and students in identifying activities that promote basic skills development, the CIMC has implemented a marking system that uses simple graphic symbols, or icons, and a list of specific tasks, or enablers, to identify the basic skill or skills that are called for in each job or assignment sheet.

Each of the nine broad skills areas - reading, writing, mathematics, science, oral communication, interpersonal or relating, creative thinking and problem solving, employability, and social studies - is represented by the icon presented below.

Reading

Science

Creative Thinking/ Problem Solving

Writing

Oral Communication

Employability

Math

Interpersonal or Relating

Social Studies

When an activity involving one of these basic skills is identified, the corresponding icon is placed in the left-hand margin of the job or assignment sheet. The basic skills training is further defined by retrieving the specific, or enabling, skill that is required by consulting a list of over two hundred and fifty enablers that has been compiled and grouped with each general basic skill. This enabling skill is placed directly below the icon.

As an example, an exercise that requires a student to conduct library research would make necessary the use of specific reading comprehension and research and reference skills. The basic skills that the exercise promotes would be depicted in the left-hand margin as follows:

ASSIGNMENT SHEET | ***PLANNING LIVING SPACE FOR HUMAN NEEDS*** **1**

Name _____ Score _____

OBJECTIVE 10

Define personal territory.

INSTRUCTIONS

Reading Comprehension
- Gain factual information

Functional Reading
- Follow written instructions
- Use content area vocabulary

Language
- Use standard grammar, spelling, and capitalization
- State ideas clearly

- As discussed in Objective 1, each person has an invisible "space bubble" or comfort zone. A comfort zone is the space between oneself and others that brings a feeling of well-being. When one's comfort zone is crowded or invaded, discomfort often results. Therefore, personal territory needs should be a prime consideration when planning living space.
- For each of the following situations, draw your estimated comfort zone around the figures provided.
- Indicate how many inches from your body the comfort zone extends.
- Consider how that comfort zone changes in different situations. Answer the questions that follow.

Basic Skills Documentation Matrix

Another component of the CIMC basic skills instructional plan is the "Basic Skills Documentation Matrix." The matrix graphically summarizes the basic skills training included in the vocational program, unit by unit. It should be helpful to teachers in planning their instruction, and to administrators as documentation that basic skills **are** being addressed during the vocational training.

The matrix for this publication is included as an 8½" by 11" foldout in this *Instructor's Manual.*

Matrices have been developed for most CIMC publications. For more information on those available for other programs, call the CIMC at 1-800-654-4502.

Instructional Supplement

The supplement is a tool for the instructor to use in helping students apply the basic skills in Assignment Sheets and Job Sheets. Some supplements are appropriate for use with all students; some are for use only with those students who do not understand the academic skills called for in the exercise.

MEASURING STUDENT PERFORMANCE GAINS

When you examine this book, you will notice that separate written pretests are no longer included in the units of instruction. Each CIMC unit now contains only a single Written Test. This test should be used as **both** pretest and posttest by giving it once before students start a unit and again when they have completed the unit.

The reason for using a single instrument as both pretest and posttest is so that direct comparison of each student's competencies before and after instruction can be made accurately. This comparison enables precise calculation, documentation, and evaluation of student **performance gains**.

Accurate performance gains analysis is an important requirement of the new Carl Perkins legislation for vocational education. Teachers can make an important contribution to the performance accountability mandated by the new federal legislation by carrying out accurate performance gains analysis for their students, and making this data available to students, parents, and administrators.

This analysis is easy to do and requires only simple calculations and record keeping. Detailed information regarding performance gains analysis is contained in the CIMC publication, *Measuring Learning & Competency Gains: The Pretest/Posttest Approach.* In addition, the CIMC has developed a computer program, CARL, which will perform all necessary calculations and will print out a record form of all information required for gain score analysis. Copies of CARL and the publication are available through your local testing liaison (in Oklahoma), or from the CIMC at 1-800-654-4502.

REQUIRED CRITERIA FOR A COMPETENCY-BASED EDUCATION PROGRAM

Criterion	Discussion	CIMC component meeting criterion
1. Instruction is based on clearly-stated learning objectives that are: a) observable and measurable, and b) communicated in writing to students before instruction begins.	Learning objectives drive CBE. Objectives are the "competencies" that learners must achieve. Each objective must clearly state what *learners* must *do* to demonstrate acquired skill or knowledge. Verbs in learning objectives are active and precise, stating the exact performance expected of learners. The objectives should also specify the standard or level of performance required. Objectives can be at any level of Bloom's Taxonomy and can include the cognitive, psychomotor, and affective domains. Higher-order cognitive skills should be included.	Objective Sheet
2. Instruction is aligned with the stated learning objectives	In CBE, the objectives specify what is taught. "Content" should relate to one or more objectives. The curriculum should cover all objectives with relevant information.	Information Sheet
3. There is a student evaluation system that is: a) criterion-referenced, and b) aligned to the learning objectives and the curriculum.	In CBE, the aim is to bring the performance of *all* learners up to a pre-defined standards and competencies. Learners work on each competency until they achieve "mastery"; the evaluation system should test and record this mastery. Learners can restudy and retest as often as needed. Specific remediation activities should also be available to learners when needed. The evaluation system focuses on what each student has achieved, not on what the instructor has "taught." The "constant" in CBE is student performance; the "variables" are time and resources. (This differs from traditional systems where learners get one chance at mastery; some succeed and some fail. In such systems, time and resources are constant and student achievement is variable.) If an evaluation is criterion-referenced, successful learner performance is defined by (or *referenced* to) mastery of pre-set objectives and standards (or *criteria*): there must be a careful match (or *alignment*) between what the student should master (objectives), what is taught (curriculum), and what is tested. Objectives, curriculum, and evaluation system must all match.	Written Test and Job Sheet/Skill Test

Criterion	Discussion	CIMC component meeting criterion
4. There is an observable management system of cognitive skill practice that provides for, promotes, and documents mastery learning.	For both cognitive and psychomotor skills, a CBE program must have a system of maintaining records of which skills and activities each learner has completed, which ones are in progress, and which ones have not yet been completed. Completion means "mastery"; no skill is completed until the learner has achieved the mastery level. The record system should promote feedback on student skill attainment to *both* instructor and learners, provide for remediation as needed, and encourage reevaluation of learner performance until mastery is achieved. Appropriate remediation strategies often should consider learning styles and other individual differences among learners. Learners should work on skills and activities until they achieve mastery. They should not be "passed on" without mastery. While learners may move ahead and work on other skills (i.e those for which all prerequisite skills have been mastered or those without prerequisites), work should also continue on the skills still requiring mastery. Students should not attempt higher-order skills until all prerequisite skills are mastered.	Assignment Sheet
5. There is an observable management system of psychomotor skill practice that provides for, promotes, and documents mastery learning.		Job Sheet/Skill Test
6. Skill mastery records are maintained for each learner, and learners have access to and make use of these records to monitor their skill acquisition.	Records should clearly indicate the skills each learner has mastered. One such record should profile or list the competencies that have been mastered and those to be mastered. Other performance indicators can be added and kept in a portfolio for each learner. Learners should have ready access to their portfolios to monitor their own progress in skill mastery and competency attainment.	Competency Profile

CORRECTIONS AND SUGGESTIONS

The Curriculum and Instructional Materials Center (CIMC) wants to provide vocational instructors and students with accurate and effective materials. Although the CIMC strives to maintain the highest standards of development and production, oversights sometimes do occur. If you find any errors in this or other CIMC publications, or have suggestions for improving their usefulness in vocational programs, please notify the CIMC staff. To do this, please identify the page(s) affected and write any comments to clarify the error or suggestion. Use the spaces below. Then, simply fold (bottom of page *upward*, top *downward*), secure, and mail.

This information will be used to correct the publication before the materials are reprinted. To ensure that the material is updated on a timely basis, notify the CIMC of necessary corrections as soon as possible after discovering the error.

[2] Fold downward

Page: Comment:

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APPLYING PRINCIPLES OF BASIC NUTRITION

Required Activities and Resources (R)

These are fully integrated components of this CIMC curriculum. They are usually packaged in or with the curriculum and are essential in meeting the learning objectives. To individualize this unit, use the LAP Sheet supplied in your resources.

- Reproducible handouts and Transparency Masters are included in the Instructor's Resource Package. Handouts should be copied for all students. Transparency Masters should be used to make overhead transparencies for use during instruction. A small copy of each Transparency Master appears in the student's Information Sheets.
- Non-reproducible resources are included in the student's curriculum.

Optional Activities and Resources (O)

These are suggested high-interest activities to help deliver learning objectives to students or to let students achieve objectives in an applied context. Select as many as you wish to use. Some activities use extra resources for further information about unit content. You can make them available in the classroom for in-depth study or optional activities, but their use is not required for meeting CIMC unit objectives.

FOCUS ASSIGNMENTS

Prereading

R Have the students read Handout 1, "The Food Guide Pyramid."

Writing

R Have the students write a short discussion of how they may be able to use the new food pyramid to make healthy eating choices.

O Have the students give an extemporaneous speech discussing the new food pyramid.

O Have the students plan a daily menu using the food pyramid guidelines.

GENERAL INSTRUCTIONS

Assignment Sheets

- R Review the directions and any specific guidelines.
- R Make certain that any needed materials from the Instructor's Resource Package are available.
- R Have the students complete the Assignment Sheet. Evaluate each student's performance and provide reteaching and retesting as necessary. Have the students repeat the Assignment Sheet until they achieve mastery.
- R Complete each student's Competency Profile.
- O Have the students volunteer to read aloud the directions and any special guidelines.
- O Return the completed Assignment Sheets to the students so that they may use them for later reference if needed.

OBJECTIVE 1

Match nutrients with their definitions.

- O Discuss classes of nutrients.
- O Have students play reinforcement games and work crossword puzzles using terms.

OBJECTIVE 2

Select the functions of carbohydrates.

- O Display pictures or models which show sources of carbohydrates.

OBJECTIVE 3

List examples of the principal sources of carbohydrates in the diet.

See Objective 2.

OBJECTIVE 4

Select the functions of proteins.

- O Discuss symptoms of protein deficiency.

OBJECTIVE 5

Distinguish between the characteristics of a complete and an incomplete protein.

OBJECTIVE 6 **Distinguish between sources of complete and incomplete proteins.**

- Use models and pictures of food to help students identify sources of complete and incomplete proteins.

OBJECTIVE 7 **Discuss the characteristics of complementary proteins.**

- Have students help identify commonly used non-animal foods that could be combined in a meal to provide all of the necessary amino acids.

OBJECTIVE 8 **Select the functions of fat.**

- Emphasize that not all fat is unhealthy and that the body does require some fat for daily use.
- Discuss the impact a diet high in fats can have on weight loss or gain.

OBJECTIVE 9 **Distinguish between the characteristics of saturated and unsaturated fats.**

- Display a poster that shows the different sources of saturated and unsaturated fats.

OBJECTIVE 10 **Distinguish between sources of saturated and unsaturated fats.**

See Objective 9.

OBJECTIVE 11 **Select the characteristics of cholesterol.**

- Emphasize to students that not all cholesterol is unhealthy and that the body does require some cholesterol for daily use.
- Obtain a printout from a lab test that shows cholesterol and triglyceride levels/ranges. Discuss the ranges for the different values.
- Remind students that foods can be cholesterol-free and still contain fat.

OBJECTIVE 12 **Distinguish between foods that contain large amounts of cholesterol and those that do not contain cholesterol.**

See Objective 11.

OBJECTIVE 13 **Select the characteristics of triglycerides.**

See Objective 11.

OBJECTIVE 14 **Select dietary sources of triglycerides.**

See Objective 11.

OBJECTIVE 15 **Identify the correct percentages of fats, carbohydrates, and proteins that are recommended for the daily diet of a healthy adult.**

- O Discuss the importance of a healthy balance of fats, carbohydrates, and proteins in the diet of an adult.
- O Stress that the safest and easiest way to cut calories is to reduce the amount of fat in the diet.
- O Practice calculating the percentages of carbohydrates, proteins, and fats that a person consumes daily.

OBJECTIVE 16 **List the number of calories in one gram of carbohydrate, protein, and fat.**

- O Use examples to illustrate how calories can be calculated.
- O Select favorite foods and determine the number of calories in each item.

OBJECTIVE 17 **List the factors that affect an individual's energy requirements.**

- H Have students read Handout 2, "Obesity."
- O Discuss metabolism; include information about the body using calories during rest periods.
- O Discuss how strict diets can slow metabolism and "fool" the body into changing the metabolism rate, resulting in weight gain rather than loss.

OBJECTIVE 18 **Select the general characteristics of vitamins and minerals.**

- Display foods that are good sources of vitamins.
- Display foods that are good sources of minerals.
- Select certain foods and discuss all of the vitamins and minerals found in these foods.

OBJECTIVE 19 **Distinguish between fat-soluble and water-soluble vitamins.**

See Objective 18.

OBJECTIVE 20 **Distinguish between characteristics of fat-soluble and water-soluble vitamins.**

See Objective 18.

OBJECTIVE 21 **Choose the word or phrase to complete statements about the functions and major sources of fat-soluble vitamins.**

See Objective 18.

OBJECTIVE 22 **Choose the word or phrase to complete statements about the functions and major sources of water-soluble vitamins.**

See Objective 18.

OBJECTIVE 23 **Match the commonly used names of selected vitamins to their chemical names.**

See Objective 18.

OBJECTIVE 24 **Choose the word or phrase to complete statements about the functions and major sources of selected minerals.**

See Objective 18.

OBJECTIVE 25

Choose the word or phrase to complete statements about the functions and major sources of fiber.

- O Discuss the need for fiber in the diet. Relate the information to problems that result from a low intake of fiber.
- O Have students select foods to produce menus that are sufficient in fiber. Compare the information to the typical diet of the student.

OBJECTIVE 26

Calculate the caloric value in meals and analyze daily menus. (Assignment Sheet 1)

- R See the general instructions for all Assignment Sheets.
- O Display a poster of foods that are high in calories but empty in most nutrients.

OBJECTIVE 27

Evaluate menus for nutritional adequacy. (Assignment Sheet 2)

- R See the general instructions for all Assignment Sheets.
- R Have students keep a 24-hour record of their food intake.
- O Use models of foods to show the Food Guide Pyramid.
- O Use computer software to perform computer analyses of students' diets.

EVALUATION

Pretest

- Use the unit Written Test for *both* the pretest and posttest. Give the students the pretest before they begin the unit.
- You may wish to use the CIMC publication *Measuring Learning and Competency Gains: The Pretest/Posttest Approach* for instructions and suggestions on giving pretests and using the results. Information for ordering this material is included in the optional resources section.
- Use pretest results to guide individual students in progressing through the unit, doing enrichment work, or moving to the next unit.

Focus Assignment

- Use an informal evaluation of the focus assignments as a diagnostic tool for determining if any students need extra help in reading comprehension or writing skills. Refer these students to their English instructor, Learning Resource Center, or Educational Enhancement Center.

Assignment Sheet

- Evaluate students on Assignment Sheet activities. Students must repeat an Assignment Sheet until they have mastered the activity.
- Complete each student's Competency Profile.

Skill Test

- Explain to the students that they will be asked to demonstrate the procedures on the Job Sheets as a skills test.
- Describe the rating scale used on the skills test.
- Reteach and retest as necessary.
- Complete each student's Competency Profile.

Posttest

- After they have completed the unit, give students the Written Test again.
- Explain to the students that they will be asked to demonstrate on the Written Test actions listed in the specific objectives.
- You may wish to use the CIMC publication *Measuring Learning and Competency Gains: The Pretest/Posttest Approach* for instructions and suggestions on giving posttests and using the results. Information for ordering this material is included in the optional resources section.
- Reteach and retest as necessary to meet individual student needs and state standards for student learning and competency gains.
- Complete the appropriate sections of the Competency Profiles.

- Review individual and group performance to evaluate teaching effectiveness. Adjust scope, sequence, or instructional methods for additional lessons as required.

REQUIRED RESOURCES

The items marked with an asterisk are included in the Instructor's Resource Package.

Publications

- "The Food Guide Pyramid." Handout.*
- "Obesity." Handout.*

OPTIONAL RESOURCES

Publications

- *Measuring Learning and Competency Gains: The Pretest/ Posttest Approach.* Stillwater, OK: CIMC, Oklahoma Department of Vocational and Technical Education, 1992. For ordering information call 800-522-5810.
- *New LEAN Toward Health* an updated booklet from ADA's National Center for Nutrition and Dietetics (NCND), helps consumers interpret fat, saturated fat and cholesterol listings on the new food label. Single copies free; bulk orders ($5.00 per 25 booklets). Order single copies from NCND's Consumer Nutrition Hotline, 800-366-1655; bulk orders, the ADA Foundation, P.O. Box 4729, Dept. L1, Chicago, IL 60680-4729.
- *THE PYRAMID PLAN™: A Guide to Healthy Eating.* A 64-page, full-color nutrition guide. $2.00 Order from The Pyramid Plan, P.O. Box 2636, Houston, TX 77252.
- *Oklahoma State Diet Manual,* can be purchased from the Oklahoma State University Technical Branch Bookstore, Student Center, Room 105, 900 N. Portland, Oklahoma City, OK 73107. Phone (405) 945-3201.

Videos

- *Smart Selections for Healthy Eating: Using the New Food Label.* A 6-minute videotape and booklet by Public Voice for Food and Health Policy and the Campbell Soup Company, is designed for consumers and health educators. The video describes the new label in easy-to-understand language and explains how it can be used to make good health an everyday priority. Order from Smart Selections Video, P.O. Box 964, Bensalem, PA 19020 or 800-352-SMART.

UNIT REFERENCES

Computer Software

- *Diet Expert*™, Expert Software, P.O. Box 144506, Coral Gables, FL 33114-4506

Publications

- *HOSA: Learn, Grow, Become.* Stillwater, OK: Oklahoma State Department of Vocational and Technical Education/ Curriculum and Instructional Materials Center, 1989.
- Holman, Susan R. *Essentials of Nutrition for the Health Professions.* Philadelphia: J.B. Lippincott Company, 1987.
- Kimmel, Georgia W., ed. *Oklahoma Diet Manual,* (8th ed.). Oklahoma City: Oklahoma Dietary Association, 1987.
- Lewis, Clara Mixon. *Nutrition and Nutritional Therapy in Nursing.* Norwalk, CT: Appleton-Century-Crofts, 1986.
- *The Food Guide Pyramid.* Hyattsville, MD: U.S. Department of Agriculture, 20782.

ASSIGNMENT SHEETS

OBJECTIVE 26

Assignment Sheet 1

Part 1

80 calories
68 calories
77.5 calories
68 calories
80 calories
0 calories
48 calories

Total number of calories: 421.5

Part 2

28 calories
110 calories
136 calories
116 calories
40 calories
45 calories
0 calories

Total number of calories: 475

Part 3

155 calories
56 calories
28 calories
113 calories
45 calories
274 calories
0 calories

Total number of calories: 671

Part 4

600 calories

Part 5

Meal II

OBJECTIVE 27

Assignment Sheet 2

Part 1

1. No
2. Add 1-6 more servings in the grain group
   Add ½-1 more serving in the milk group
   Add 2-4 more servings in the vegetable group
3. Part 3 Dinner
4. Part 3 Dinner
5. Part 3 Dinner

Part 2

Student 24 hour food diary — Answers will vary according to students' diaries

WRITTEN TEST

OBJECTIVE 1

1. G
2. B
3. A
4. F
5. C
6. E
7. D

OBJECTIVE 2

1, 2, 3, 5, 6, 9

OBJECTIVE 3

Answer must include all of the following:

1.
   - Grains and grain products
   - Sugar and sugar products
   - Starchy vegetables
   - Fruits
2. Milk

OBJECTIVE 4

3, 4, 6, 7, 8, 9, 10, 11, 13

OBJECTIVE 5

1. C	4. I
2. C	5. I
3. I	6. C

OBJECTIVE 6

1. C	6. C
2. I	7. I
3. I	8. C
4. I	9. I
5. I	

OBJECTIVE 7

Answers should include:

- Incomplete protein foods that can be combined in the diet to provide the amino acids found in complete proteins
- Proteins that are from vegetable origin
- Used by vegetarians to maintain health

OBJECTIVE 8

1, 3, 5, 6, 7, 9, 10, 11

OBJECTIVE 9

1. U	5. U
2. S	6. S
3. U	7. S
4. S	8. S

OBJECTIVE 10

1.	S	9.	S
2.	S	10.	U
3.	S	11.	U
4.	S	12.	U
5.	S	13.	S
6.	U	14.	S
7.	S	15.	U
8.	S	16.	U

OBJECTIVE 11

1, 2, 3, 4, 8

OBJECTIVE 12

1.	N	7.	H
2.	H	8.	N
3.	H	9.	H
4.	H	10.	N
5.	H	11.	H
6.	H		

OBJECTIVE 13

1, 3, 4

OBJECTIVE 14

1, 2, 4, 5, 7, 8, 9, 10

OBJECTIVE 15

3

OBJECTIVE 16

1. 9
2. 4
3. 4

OBJECTIVE 17

Answer should include the following:

- amount of physical activity
- age
- size
- sex
- physical condition
- climate

OBJECTIVE 18

1, 2, 3, 4, 6

OBJECTIVE 19

1. F
2. W
3. W
4. W
5. W
6. W
7. F
8. F
9. F
10. W
11. W

OBJECTIVE 20

1. W
2. F
3. F
4. W, F
5. F
6. W
7. W
8. F
9. F

OBJECTIVE 21

1. A
2. B
3. B
4. A
5. B
6. A

OBJECTIVE 22

1. D
2. C
3. C
4. C
5. D

OBJECTIVE 23

1. D
2. F
3. J
4. I
5. C
6. E
7. A
8. O
9. K
10. B

OBJECTIVE 24

1. B
2. C
3. C
4. A
5. A
6. D
7. B
8. D
9. D
10. B

OBJECTIVE 25

1. C
2. A

OBJECTIVE 26

Refer to answers to Assignment Sheet 1.

OBJECTIVE 27

Refer to answers to Assignment Sheet 2.

CIMC
TEST CODE SHEET

VOCATIONAL PROGRAM (BOOK TITLE) NUTRITION

UNIT NUMBER AND TITLE – 1 – APPLYING PRINCIPLES OF BASIC NUTRITION

TOTAL NUMBER OF TEST QUESTIONS 184

TOTAL NUMBER OF BASIC SKILL QUESTIONS 184

OBJECTIVE NUMBER	TEST QUESTION NUMBER(S)	BASIC SKILL CODE(S)
1	1-7	
2	1-9	S
3	1-2	S
4	1-13	S
5	1-6	S
6	1-9	S
7	1	S
8	1-11	S
9	1-8	S
10	1-14	S
11	1-8	S
12	1-10	S
13	1-5	S
14	1-10	S
15	1-4	S
16	1-3	S
17	1-6	S
18	1-6	S

CIMC
TEST CODE SHEET

VOCATIONAL PROGRAM (BOOK TITLE) NUTRITION

UNIT NUMBER AND TITLE – 1 – APPLYING PRINCIPLES OF BASIC NUTRITION

OBJECTIVE NUMBER	TEST QUESTION NUMBER(S)	BASIC SKILL CODE(S)
19	1-11	S
20	1-9	S
21	1-6	S
22	1-5	S
23	1-9	S
24	1-10	S
25	1-2	S
26	Evaluated on Assignment Sheet	
27	Evaluated on Assignment Sheet	

APPLYING PRINCIPLES OF DIET THERAPY

2

Required Activities and Resources (R)

These are fully integrated components of this CIMC curriculum. They are usually packaged in or with the curriculum and are essential in meeting the learning objectives. To individualize this unit, use the LAP Sheet supplied in your resources.

- Reproducible handouts and Transparency Masters are included in the Instructor's Resource Package. Handouts should be copied for all students. Transparency Masters should be used to make overhead transparencies for use during instruction. A small copy of each Transparency Master appears in the student's Information Sheets.
- Non-reproducible resources are included in the student's curriculum.

Optional Activities and Resources (O)

These are suggested high-interest activities to help deliver learning objectives to students or to let students achieve objectives in an applied context. Select as many as you wish to use. Some activities use extra resources for further information about unit content. You can make them available in the classroom for in-depth study or optional activities, but their use is not required for meeting CIMC unit objectives.

FOCUS ASSIGNMENTS

Prereading

R Have the students read Handout 1, "Therapeutic Diets."

Writing

R Have the students select a therapeutic diet and write a short discussion of how they would change their diet if they were following the therapeutic diet.

O Have the students give an extemporaneous speech discussing a particular therapeutic diet.

GENERAL INSTRUCTIONS

Assignment Sheets

- [R] Review the directions and any specific guidelines.
- [R] Make certain that any needed materials from the Instructor's Resource Package are available.
- [R] Have the students complete the Assignment Sheet. Evaluate each student's performance and provide reteaching and retesting as necessary. Have the students repeat the Assignment Sheet until they achieve mastery.
- [R] Complete each student's Competency Profile.
- [O] Have the students volunteer to read aloud the directions and any special guidelines.
- [O] Return the completed Assignment Sheets to the students so that they may use them for later reference if needed.

Job Sheets

- [R] Review the introduction and evaluation criteria for the Job Sheet. Remind the students that they should not fill in the blanks in the Yes/No columns.
- [R] Review and explain all general guidelines, safety cautions, and warnings.
- [R] Make sure that all tools, equipment, and supplies are available.
- [R] Demonstrate each of the procedures outlined in the Job Sheet.
- [R] Allow the students to practice the Job Sheet skills before skills testing. Coach, correct, and supervise as necessary.
- [R] Have the students complete the Job Sheet. Evaluate each student's performance and provide remediation as necessary. Have the students repeat the Job Sheet until they achieve mastery.
- [R] Complete each student's Competency Profile.
- [R] Return the completed Job Sheets to the students so that they may use them for later reference if needed.
- [O] Have the students volunteer to read aloud the job guidelines, cautions, and warnings.

LAP Sheets

The LAP Sheets are an optional component that can be used to individualize instruction. The following instructions should be followed only if you are using the LAP Sheets.

- R Explain the specific procedures to be followed to the students before they begin using the LAP Sheet. Be sure that each student understands the procedures for using the LAP Sheet.
- R If you want the student to complete any of the assignments on the LAP Sheet that are labeled optional, assign these to the student. Be sure to provide any needed resources.

OBJECTIVE 1 **Select the factors that influence food habits.**

- D Invite students from various regional, religious, and cultural backgrounds to discuss the food practices of their groups.
- D Have students bring articles and advertisements from newspapers and magazines that illustrate examples of food misinformation. Discuss these in class.
- D Ask a dietician from a nursing home to speak on the ways in which age alters food habits.

OBJECTIVE 2 **Choose the word or phrase to complete statements about the effects of excessive nutrients in the diet.**

- D Discuss reasons why people consume excessive nutrients.

OBJECTIVE 3 **Select reasons for the two primary causes of nutritional deficiency.**

- D Discuss reasons for the two primary causes of nutritional deficiency.

OBJECTIVE 4 **Select the disorders and assessment data associated with carbohydrate deficiencies.**

- D Discuss reasons why people may have carbohydrate or protein deficiencies.

OBJECTIVE 5 **Select the disorders and assessment data associated with protein deficiencies.**

See Objective 4.

OBJECTIVE 6 **Choose the word or phrase to complete statements about the disorders and assessment data associated with deficiencies of selected vitamins.**

- O Discuss reasons why people may have vitamin or mineral deficiencies.

OBJECTIVE 7 **Choose the word or phrase to complete statements about the disorders and assessment data associated with deficiencies of selected minerals.**

See Objective 6.

OBJECTIVE 8 **State three types of food poisoning and give an example of each type.**

- O Discuss misconceptions about food poisoning.

OBJECTIVE 9 **Identify nursing actions that can prevent the transmission of disease-producing organisms or their toxins in foods.**

- O Have students describe actions they take at home to ensure food safety.

OBJECTIVE 10 **Discuss nursing interventions used to increase a patient's intake of food.**

- O Identify and discuss conditions that may cause decreased food intake.

OBJECTIVE 11 **Discuss nursing interventions for feeding problems caused by a disability.**

- H Give the students copies of Handout 2, "Adaptive Equipment."
- O Invite a physical therapist or occupational therapist to speak about special feeding devices and feeding techniques to use with disabled individuals. Ask this person to bring special feeding devices for display.

- [O] Display a poster board that shows special adaptive feeding devices for disabled individuals.

OBJECTIVE 12

Choose the word or phrase to complete statements about the characteristics of selected therapeutic diets.

- [O] Display bulletin boards which show foods allowed on selected therapeutic diets.
- [O] Show mock hospital trays and have students determine which foods would be inappropriate for the selected diets.

OBJECTIVE 13

Use the nursing process to improve a patient's dietary intake. (Assignment Sheet 1)

- [R] See the general instructions for all Assignment Sheets.
- [O] Discuss the nursing process. Point out that analysis is included as a step in the process but is usually completed by an RN with input from the PN.

OBJECTIVE 14

Teach a patient about a therapeutic diet. (Assignment Sheet 2)

- [R] See the general instructions for all Assignment Sheets.
- [R] Select patients or help the students select patients to teach.

OBJECTIVE 15

Feed a sighted or blind patient. (Job Sheet 1)

- [R] See the general instructions for all Job Sheets.
- [O] Have students practice feeding each other.
- [O] Have each student experience being fed while wearing a blindfold.
- [O] Ask students to discuss their feelings about being fed.

OBJECTIVE 16

Feed a patient with dysphagia. (Job Sheet 2)

- [R] See the general instructions for all Job Sheets.
- [R] Review pharyngeal and tracheal suctioning procedures.
- [O] Review American Heart Association materials on relieving airway obstructions.

- [ ] Have students practice relieving airway obstructions on mannequins if necessary.

EVALUATION

Pretest

- Use the unit Written Test for *both* the pretest and posttest. Give the students the pretest before they begin the unit.
- You may wish to use the CIMC publication *Measuring Learning and Competency Gains: The Pretest/Posttest Approach* for instructions and suggestions on giving pretests and using the results. Information for ordering this material is included in the optional resources section.
- Use pretest results to guide individual students in progressing through the unit, doing enrichment work, or moving to the next unit.

Focus assignments

- Use an informal evaluation of the focus assignments as a diagnostic tool for determining if any students need extra help in reading comprehension or writing skills. Refer these students to their English instructor, Learning Resource Center, or Educational Enhancement Center.

Assignment Sheet

- Evaluate students on Assignment Sheet activities. Students must repeat an Assignment Sheet until they have mastered the activity.
- Complete each student's Competency Profile.

Skill Test

- Explain to the students that they will be asked to demonstrate the procedures on the Job Sheets as a skills test.
- Describe the rating scale used on the skills test.
- Reteach and retest as necessary.
- Complete each student's Competency Profile.

Posttest

- After they have completed the unit, give students the Written Test again.

- Explain to the students that they will be asked to demonstrate on the Written Test actions listed in the specific objectives.

- You may wish to use the CIMC publication *Measuring Learning and Competency Gains: The Pretest/Posttest Approach* for instructions and suggestions on giving posttests and using the results. Information for ordering this material is included in the optional resources section.

- Reteach and retest as necessary to meet individual student needs and state standards for student learning and competency gains.

- Complete the appropriate sections of the Competency Profiles.

- Review individual and group performance to evaluate teaching effectiveness. Adjust scope, sequence, or instructional methods for additional lessons as required.

REQUIRED RESOURCES

The items marked with an asterisk are included in the Instructor's Resource Package.

Publications

- "Therapeutic Diets." Handout*

- "Adaptive Equipment." Handout*

OPTIONAL RESOURCES

Publications

- *Measuring Learning and Competency Gains: The Pretest/Posttest Approach.* Stillwater, OK: CIMC, Oklahoma Department of Vocational and Technical Education, 1992. For ordering information call 800-522-5810.

- *Heartsaver Manual.* Dallas: American Heart Association, 1993. Order from: Oklahoma Chapter, 3545 N.W. 58th, Suite 400C, Oklahoma City, OK 73112. Phone: 405-942-2444.

Computer Software

- *Diet Expert.* Expert Software, P.O. Box 144506, Coral Gables, FL. 33114-4506. Phone: 800-759-2562.

UNIT REFERENCES

Publications

- Holman, Susan R. *Essentials of Nutrition for the Health Professions.* Philadelphia: J.B. Lippincott Company, Philadelphia, 1987.

- Kimmel, Georgia W., ed. *Oklahoma Diet Manual,* 8th ed. Oklahoma City: Oklahoma Dietary Association, 1987.

- Lewis, Clara Mixon. *Nutrition and Nutritional Therapy in Nursing.* Norwalk, CT: Appleton-Century-Crofts, 1986.

- Sloan, Jamee Reid. *Practical Nursing-Volume 1.* Stillwater, Oklahoma: Oklahoma Department of Vocational and Technical Education/CIMC, 1981.

ASSIGNMENT SHEETS

OBJECTIVE 13

Assignment Sheet 1

- All questions should be answered or marked to indicate question was asked. The instructor will evaluate the appropriateness and correctness of the answers.

OBJECTIVE 14

Assignment Sheet 2

- All questions should be answered.
- The instructions for teaching are included but facility policy must be followed.
- If the student is not allowed to do the patient teaching, substitute role-play.

WRITTEN TEST

OBJECTIVE 1

1, 2, 3, 4, 5, 6, 7, 9, 10, 12, 13

OBJECTIVE 2

1. A
2. C
3. D
4. B
5. C
6. D

OBJECTIVE 3

1. A, B, C, D, E, G
2. A, B, D, F, G

OBJECTIVE 4

1, 2, 5, 8

OBJECTIVE 5

1, 2, 3, 5, 6, 7, 8

OBJECTIVE 6

1. D
2. D
3. B
4. B
5. A
6. C
7. C

OBJECTIVE 7

1. D
2. A
3. C
4. B
5. B

OBJECTIVE 8

The answers may appear in any order, but examples must be with the appropriate type.

- Poisons found in foods in their natural state

  Example: poisonous mushrooms

- Chemicals added to foods

  Example: insecticides

- Disease-producing organisms or their toxins in foods

  Example: type A hepatitis, bacteria that causes botulism

OBJECTIVE 9

2, 5, 6, 7

OBJECTIVE 10

- Situation 1: Answer should include
  - Get an order from the doctor for a humidifier to place in the patient's room.
  - Provide the patient with artificial saliva.
  - Encourage the patient to drink 8 to 12 cups of liquids daily.
  - Advise the patient to avoid dry foods and to moisten foods in liquids.
  - Use sugar-free hard candies to take away strange tastes.

- Encourage the patient to eat chicken, turkey, fish, cheese or eggs if she complains that red meat does not taste right.
- Provide the patient with tart foods to use as seasoning.

☞ **NOTE:** This patient should not be encouraged to use sugar-containing foods because of the restrictions of her diet

- Situation 2: Answer should include
  - Do not serve the patient "lumpy" foods.
  - Give the patient foods which are smooth and soft in consistency.
  - Advise the patient to try bland, low-fat foods if the physician allows.
  - Tell the patient not to lie down in bed for two hours after eating.
  - If the physician allows, give the patient chilled antacids 1 hour and 3 hours after meals.

OBJECTIVE 11

Answers should include

- Situation 1
  - Anchor feeding equipment with nonslip mats or suction cups.
  - Serve finger foods and foods that stick together.
  - Use tape or foam rubber to make the handles on eating utensils larger.
- Situation 2
  - Raise the height of the feeding table as close as possible to the patient's mouth.
  - Use lightweight feeding equipment.

OBJECTIVE 12

1. A	4. A	7. C
2. D	5. D	8. C
3. B	6. B	9. B

OBJECTIVE 13	Evaluated on Assignment Sheet 1.
OBJECTIVE 14	Evaluated on Assignment Sheet 2.
OBJECTIVE 15	Evaluated on Job Sheet 1.
OBJECTIVE 16	Evaluated on Job Sheet 2.

CIMC
TEST CODE SHEET

VOCATIONAL PROGRAM (BOOK TITLE) NUTRITION

UNIT NUMBER AND TITLE – 2 – APPLYING PRINCIPLES OF DIET THERAPY

TOTAL NUMBER OF TEST QUESTIONS 92

TOTAL NUMBER OF BASIC SKILL QUESTIONS 69

OBJECTIVE NUMBER	TEST QUESTION NUMBER(S)	BASIC SKILL CODE(S)
1	1-13	X
2	1-6	S
3	1 a-i, 2 a-h	S
4	1-9	S
5	1-10	S
6	1-7	S
7	1-5	S
8	1-4	X
8	5	S
9	1-7	T
10	1-2	T
11	1-2	T
12	1, 3-6, 9	X
12	2, 7, 8	S
13	Evaluated on Assignment Sheet 1	
14	Evaluated on Assignment Sheet 2	

CIMC
TEST CODE SHEET

VOCATIONAL PROGRAM (BOOK TITLE) NUTRITION

UNIT NUMBER AND TITLE – 2 – APPLYING PRINCIPLES OF DIET THERAPY

OBJECTIVE NUMBER	TEST QUESTION NUMBER(S)	BASIC SKILL CODE(S)
15	**Evaluated on Job Sheet 1**	
16	**Evaluated on Job Sheet 2**	

Nutrition

Instructional Supplement

Reading

Science

Creative Thinking/
Problem Solving

Writing

Oral
Communication

Employability

Math

Interpersonal
or Relating

Social Studies

Reading Comprehension

- If students have difficulty gaining factual information:
  - Remind students that they probably read for many reasons. One of these reasons is to learn new information. The reason you have for reading helps determine the way you read.
  - Have students discuss the different techniques they use when reading. Lead the discussion so that students realize that, when they read for fun, they may read quickly; they may skim some parts and read others more carefully. Reading for facts requires more care.
  - Suggest that one technique found to be successful includes the following steps:
    - Identify in advance what it is you want to learn. Be certain that before starting to read, you have a clear understanding of what you want to accomplish. It sometimes helps to list the questions to be answered.
    - If the material to be read includes a table of contents, study it to get an understanding of how the material is organized.
    - Scan through the material noting headings, highlighted information, illustrations, etc.
    - Read the material carefully. Take notes or highlight as you read, listing or marking the information you want to learn. Note key words and ideas.
    - Study your notes/highlighted material. Ask yourself if you found all you wanted to learn. If not, read the material again or locate another source for the information.
  - Tell students that they should find a personal technique for reading to learn factual information.

Research and Reference

- If students have difficulty selecting useful resources:
  - Review the different types of resources available to students. Have volunteers tell what kind of information can be found in each resource type. Have them discuss the types of projects on which each resource can assist.
  - Help students learn how to locate each resource in libraries, resource centers, or media centers.

Functional Reading

- If students have difficulty interpreting forms and records:
  - Remind students that interpreting forms and records is a skill they will be practicing throughout life. We must read and interpret forms or records almost daily. Have students volunteer to identify the types of forms or records they will encounter or have already encountered.
  - Compare the interpretation of forms and records to reading a page. Each part of the form or record has a specific purpose. Suggest that, when they have a form or record to interpret, students should carefully study the headings and the sections within the form or record, as well as the key or any other information that will help in understanding the meaning of the form or record.
- If students have difficulty following written instructions:
  - Discuss the possible consequences of not following instructions precisely.
  - Review the *importance* of following written instructions. Give appropriate scenarios when written instructions are not followed or are not followed completely and correctly.
  - Discuss the *relationship* between the order of written instructions and the appropriate outcome. Emphasize the need to follow written instructions in their proper order. Use examples where the order of instructions in a sequence is critical to the outcome of the task.
  - Explain to students that one of the keys to following written directions successfully is to read the directions completely before actually beginning to follow them. Doing this ensures that you will not be surprised as you work through the steps. It also gives you an opportunity to ask questions about steps you do not understand.
  - Tell students that, after they have read the directions and understand what to do, they should go back to Step 1 and follow the directions step-by-step (without skipping any steps). Remind students that it is important to follow steps in order, even if they think they already know what to do.
- If students have difficulty using content area vocabulary:
  - Remind students that nearly every occupation or group uses words that have specific, specialized meanings to others in the same occupation or group. Have them name and define some content area, technical, or "slang" words with which they are familiar.

- Explain that using content area or technical words makes it easier for people within groups or occupations to communicate ideas accurately. Remind students that often the same word may have a generic meaning to the majority of people, but a very specific meaning within an industry.

- Review key terms and concepts, so that students hear, see, write, and say them.

- Have students suggest ways to learn the meanings of the vocabulary specific to what they are studying. Provide opportunities for students to practice using the terminology they will need.

Language

- If students have difficulty using standard grammar, spelling, and capitalization:

  - Discuss the importance of using standard grammar and correct spelling, punctuation, and capitalization. Include the fact that it is more difficult to read and understand incorrectly-written materials, and that readers will take correctly-written materials more seriously.

  - List common errors in grammar, spelling, punctuation, and capitalization in materials written by your students. Review this list with the class or with individuals.

  - Help students to develop a checklist to use as they write, edit, and proofread. Each student can personalize his or her own checklist by adding the items that present the most problems to him or her. If spelling is a problem, suggest that the student keep a personal dictionary of frequently used or misspelled words.

  - Have students work with partners or in groups and review each others' writing. Allow time for students to discuss the comments with their partners or groups.

  - Suggest that as students write or proofread their own writing, they circle or mark places where they are unsure of the correct grammar, punctuation, capitalization, or spelling. Provide materials (English grammar/mechanics books or style guides) or class time for students to review, revise, or correct their writing.

- If students have difficulty stating ideas clearly:

  - Remind students to determine in advance the ideas they want to convey and the audience they want to reach. Audience analysis is very important in presenting ideas clearly and appropriately.

- State that audience analysis begins early, such as when students are doing their research. They must describe their intended audience and decide how to best present their ideas to that audience. Options for communicating with the audience include written reports, charts, graphs, diagrams, etc. Explain how the audience influences the way in which the information is presented (such as very simple text with pictures, for children; a great deal of background information, for people who know nothing about or very little about the subject; or, little background but more complex information, for experts).

- Have students work with a partner or in a small group. Provide time for them to share ideas with each other and make suggestions for making ideas clearer.

- Remind students that careful preplanning and the use of correct grammar, spelling, punctuation, and capitalization are especially important if their ideas are to be clearly understood by the intended audience.

Functional Writing

- If students have difficulty completing forms and records:

  - Remind students to first decide what information is being requested. Examine the structure of the forms used. This saves time by identifying the needed information so that time will not be spent on unwanted information.

  - Tell students to plan responses carefully before putting them in a final form. If the responses call for sentence or paragraph information, it is always a good idea to write the response in rough draft form, then edit, proofread, and rewrite the draft in a final form. Stress the importance of accurate, legible records.

Operation and Calculation

- If students have difficulty calculating with whole numbers:

  - Review basic skills in addition, subtraction, multiplication, and division.

  - Review mathematical terminology. (For example, "compare" indicates that you must subtract.)

  - Suggest the use of a calculator to check answers.

Math Application

- If students have difficulty solving word problems:
  - Discuss the approach to solving word problems. Instruct students to read the information carefully, noting the key elements of the problem.
  - Solve a sample word problem similar to the problems to be solved by students.
- If students have difficulty selecting and applying mathematical formulas or procedures:
  - Review basic math formulas and math skills with the class or with individual students as necessary.
  - Remind students that basic math skills are used daily in such ways as counting change and paying for purchases. Remind them that they use basic mathematical formulas, such as addition and subtraction, to figure their wages and to balance their checkbooks.

Data Analysis and Display

- If students have difficulty interpreting charts and tables:
  - Review the structure of the specific chart or table.
  - Discuss the information contained in the chart.
  - Demonstrate the proper use of the chart.

Life Science

- If students have difficulty investigating health issues:
  - Review the issues relevant to the specific assignment.
  - Explain the reasons for investigating the particular issues and why they are important to the students.
  - Provide practice assignments.
  - Break the assignments into smaller sections and evaluate performance frequently.

Oral Presentation

- If students have difficulty making informative presentations:
  - Emphasize the value of carefully plan what students want to say and how they want to say it.
  - Name an audience and a topic. Have students discuss ways to make an informative presentation to the audience about a given topic. Have them think about ways of relating the topic to the audience. Ask them how they would change the presentation if the audience were different.
  - Remind students that visual or audio materials sometimes help make presentations more informative and easier to understand.
- If students have difficulty making persuasive presentations:
  - Review effective speaking techniques with students.
  - Ask students to give three reasons why persuading others to their point of view is important. Ask them what will happen if others are not persuaded.
- If students have difficulty adapting their presentation to a specific audience:
  - Remind students that a first step in planning and making successful presentations is to identify the intended audience and decide how to best present to that intended audience.
  - Have the class discuss ways to adapt material to different audiences by naming a topic (such as football) and an audience (a high school football team, a group of foreign visitors who have never even seen a football game, a group of adults who have seen football games but want to know more about it) and asking for suggestions as to how to adapt the presentation. Let the group name other topics and audiences to discuss.

Listening

- If students have difficulty applying active listening skills:
  - Remind students that they spend much of their time listening to what other people are saying. Ask them if they have ever tried, unsuccessfully, to remember what someone said. Explain that this happens to almost everyone. Ask why they think this happens.

- Discuss the importance of listening carefully and attentively to conversations, discussions, and interviews. Explain that students should always have a purpose for listening and should always keep that purpose in mind while listening. Suggest that they take notes or record interviews or discussions that they need or want to remember or use later.

- Encourage students to become familiar with the subject matter before communication begins.

- Have students practice listening to and repeating information.

- Present some helpful guidelines for effective listening, such as being ready to listen, focusing on the speaker, and maintaining eye contact with the speaker.

• If students have difficulty drawing conclusions/making generalizations:

- Remind students that when they analyze a situation, perform a job task, or even discuss a television show or movie, they will often be asked to demonstrate understanding by telling what happened and explaining why it happened.

- Provide opportunities for students to practice drawing conclusions by describing events, such as a group of people crowded around a table that has a decorated cake with lighted candles on it, and asking them to decide what is happening. Have them explain why they reached that conclusion.

- Provide opportunities for students to practice drawing conclusions. Present students with descriptions of events, or with photographs or drawings, and ask them to describe what is happening. Ask the student(s) to support each response.

- Remind students that before they can draw conclusions, they must carefully observe what is happening and think about why it is happening. Drawing conclusions and making generalizations require the use of active listening skills.

<u>Interactive Communications</u>

• If students have difficulty giving/following oral directions:

- Discuss the possible consequences of not following instructions precisely.

- Review the *importance* of following oral instructions. Give appropriate scenarios when instructions are not followed or are not followed completely and correctly.

- Discuss the *relationship* between the order of instructions and the appropriate outcome. Emphasize the need to follow instructions in their proper order. Use examples where the order of instructions in a sequence is critical to the outcome of the task.

- Explain to students that one of the keys to following oral directions successfully is to take notes on the instructions before actually beginning to follow them. Doing this ensures that you will not be surprised as you work through the steps. It also gives you an opportunity to ask questions about steps you do not understand.

- Tell students that, after they have heard the directions and understand what to do, they should go back to Step 1 and follow the directions step-by-step (without skipping any steps). Remind students that it is important to follow steps in order, even if they think they already know what to do.

- If students have difficulty applying questioning techniques:

  - Remind students to plan in advance what they want to ask during an interview by deciding what they need to learn from the interview.

  - Explain that it is always good to have a written list of the questions to be asked, so that important questions are not omitted. Give examples of such questions.

- If students have difficulty conducting interviews:

  - Remind students to always either record the interview in detail or take notes, instead of relying on memory.

  - Discuss the importance of being prepared for an interview. Suggest that students always take a written list of questions to ask.

  - Remind students to thank the person being interviewed, after the interview. For additional suggestions, see the section on questioning techniques.

- If students have difficulty analyzing/applying nonverbal communication:

  - Explain the importance of nonverbal communication. State that, to fully understand someone's meaning requires paying attention to the person speaking in addition to the words spoken. Voice tone, facial expressions, gestures, and body language often communicate more than words do.

  - Discuss ways in which people communicate nonverbally.

  - Review signs of positive and negative nonverbal communication. Positive signs include: open palms, hands away from body, arms swinging freely; head held high, shoulders upright; relaxed and alert while sitting or standing; smile, pleasant expression. Negative signs include: clenched fist, crossed arms; drooping head and shoulders; frowning, raised eyebrows, clenched teeth; nail biting, pulling at hair or clothing.

- Have students locate pictures or photographs of people from magazines or newspapers, or observe people communicating. Ask students to discuss the impressions they get from the body language and facial expressions used.

- Discuss the impact of body language on communication in general. Then, choose specific business and other situations in which body language has a positive or negative impact.

- If students have difficulty communicating with clients/customers/patients:

  - Remind students that a key to getting along with and successfully communicating with clients, customers, or patients is to treat them with the same respect and attitude you would like to receive. State that no one enjoys being talked down to or being treated unkindly or rudely. Also stress that it is very important to remember that a person's beliefs and ideas are theirs and should not be imposed upon others. Clients, customers, or patients should never be expected to change their beliefs; they should expect to have their beliefs respected, even if those beliefs are different.

  - Remind students that one of the best ways to successfully communicate with anyone is to listen thoughtfully and carefully to the other person(s). Do not assume that you know what the other person is going to say; this often leads to misunderstandings.

  - Have students give examples of how they have successfully communicated with clients, customers, or patients.

General Relating

- If students have difficulty interacting with clients/customers/patients:

  - Remind students that a key to getting along with and successfully communicating with clients, customers, or patients is to treat them with the same respect and attitude you would like to receive. State that no one enjoys being talked down to or being treated unkindly or rudely. Also stress that it is very important to remember that a person's beliefs and ideas are theirs and should not be imposed upon others. Clients, customers, or patients should never be expected to change their beliefs; they should expect to have their beliefs respected, even if those beliefs are different.

  - Remind students that one of the best ways to successfully communicate with anyone is to listen thoughtfully and carefully to the other person(s). Do not assume that you know what the other person is going to say; this often leads to misunderstandings.

- Have students give examples of how they have successfully communicated with clients, customers, or patients.

Cognitive Activities

- If students have difficulty collecting/recording information:
  - Suggest that they first decide how and where the information will be collected and recorded. It is also very helpful to identify how the information will be used. Explain that it is always best to come prepared with pencil or pen and a preplanned sheet for recording the specific information to be collected. This preparation allows you to devote careful attention to your work.
  - Research and outline for students the steps in using any of the following "tools" for collecting/recording information: brainstorming, brainwriting, checksheets, interviewing, and surveying.
- If students have difficulty identifying critical elements/issues:
  - Instruct students to read or examine their sources carefully, noting key words and ideas.
  - Suggest they list the questions they hope to answer.
- If students have difficulty defining a problem:
  - Suggest they examine their sources carefully to determine the problem.
  - Instruct students to use intuitive thinking techniques (brainstorming) to define a problem. Identify the four basic rules for brainstorming:
    - Encourage wild ideas.
    - Do not evaluate ideas.
    - Hitchhike -- build on the ideas of others.
    - Strive for quantity.
- If students have difficulty identifying underlying causes:
  - Introduce "cause-and-effect analysis." Define it as a systematic tool for looking at effects and the causes that create or contribute to them. State that cause-and-effect analysis can be used (1) to identify and verify

factors which are causing a problem, or (2) to identify factors that must appear in a successful solution to a problem (effect).

- Use the following steps for presenting cause-and-effect analysis:
  - Identify the effect to be analyzed. Write it out at one end of a large sheet of paper, or on the chalkboard. (Think of the effect as the head of a fish. Cause-and-effect diagrams are also known as "fishbones," due to their shape, or Ishikawa diagrams, after their inventor.)
  - Draw a horizontal line from the effect and across the paper or chalkboard. (This line becomes the "backbone" of the fish.) From this horizontal line, draw four slanting lines connected to the main line, two above and two below. (These lines are the "major bones" of the fish.)
  - At the end of each slanting line, write the classifications for the main factors that contribute to the effect: People, Procedures, Equipment, and Environment.
  - On each slanting line ("major bone"), ask students to identify the specific factors that may be causing the effect. Write the factors on the appropriate slanting line (People, Procedures, Equipment, or Environment) and parallel to the "backbone." Instruct students to use brainstorming or other method to identify these factors.
  - From the specific factors identified, ask students to identify the most significant factor(s). Then, have students gather more information to verify the factor's causal relationship to the effect.
- After students become comfortable recognizing simple cause-and-effect relationships, have them create their own examples.

- If students have difficulty analyzing/synthesizing information:
  - Define the terms "analyze" and "synthesize." Compare and contrast their meanings.
  - Remind them that to analyze they must break the information down into all its component parts in order to understand it.
  - Remind them that to synthesize information they should put all the component parts together in a way that makes the information usable.
  - Explain that it is usually necessary to learn about complex items or things by examining their make-up or parts, such as studying body structure by examining each individual system or studying auto mechanics by examining the different automobile systems.

- Also explain that it is sometimes necessary to then study the whole item or thing by studying how the parts work together to make the whole item work. This examination helps us identify and compare the relationships the parts have with each other.

- Help the students understand the concepts by asking what they would do if they turned on a light and nothing happened. Lead them to discuss that they would probably first check to see if the light was plugged in or if the bulb was burned out. Plugging it in or replacing the light bulb might make the light come back on.

- Then ask the students what they would do if the light still didn't work. Lead them to the conclusion that they should check to see if all the electricity was off. If it is, they will have to think about what they know about the whole electrical system—what are its parts. Identifying the parts of the whole will help them identify the problem.

- If students have difficulty drawing conclusions:

  - Remind students that when they conduct an experiment, perform a job task, or discuss a subject, they will often be asked to draw conclusions. Give examples of such situations.

  - Explain that, before conclusions can be drawn, students must first observe carefully what is happening and why it may be happening. Suggest that, with complex experiments, a good set of notes taken while conducting the experiment can help in drawing conclusions.

  - Have students practice drawing conclusions. When possible, choose situations appropriate for the occupation or subject (such as an actual experiment, etc.). Or, use a general situation using photographs or a videotape without the volume. Ask students to state what is happening in each picture (their conclusion). Have students support their conclusions.

- If students have difficulty evaluating an alternative:

  - To evaluate alternatives, suggest that students begin by listing the criteria which must be met by any alternative. Then, they can judge potential alternatives in terms of the criteria.

- If students have difficulty creating a finished product:

  - Have them to go back to the beginning and reidentify what it was they wanted to accomplish. Have them ask themselves how they intended to accomplish this and why it has been difficult to accomplish. Have them decide if their original idea is "do-able" or if they should decide on a new final product that they will be able to complete.

- Be sure that the students realize that one of the most important aspects of creating a finished product is the planning of the desired finished product.

- If students have difficulty developing an action plan:

  - Define an "action plan." An action plan assigns specific tasks to individuals or groups and states the date on which these tasks must be completed.

  - State the purposes of action plans. Encourage students to write these points down for reference:

    - They set up logical steps for accomplishing objectives.
    - They show achievement milestones.
    - They assign ownership to individuals and empower them.
    - They provide a basis for cooperation and recognition.
    - They describe how resources will be distributed.

  - Research and outline for students the steps in using any of the following "tools" for planning actions: flowcharts, PERT charts, and Gantt charts.

- If students have difficulty evaluating results/outcomes:

  - Help students define what the expected outcome will be before they begin the project. If they have a clear idea of what to expect, they will be more able to evaluate the results.

  - Help the students establish evaluative criteria on which to base the results of their project. Remind them that they need to establish the guidelines prior to the project in order to get an accurate evaluation.

Job Acquisition/Development

- If students have difficulty mastering specific job task/procedure:

  - Discuss the importance of mastering specific job tasks or procedures. Explain that it is probably impossible to find a job where there isn't a task or procedure to be mastered. Remind them that future employers will be more likely to hire people who can already perform the tasks required.

- Ask the students to share methods they have used to master specific job tasks or procedures. Discuss these methods with the class.
- Emphasize the fact that practice makes a person proficient and proficiency makes a person confident.
- Suggest they study each component of the procedure to determine which area is causing difficulty.
- Review the entire procedure.
- Team them with proficient students or professionals to practice the procedure.

- If students have difficulty practicing good work habits/attitudes:
  - Remind the students that future employers are looking for people with good work habits. Have the students list what they think are good work habits. Discuss each suggestion as it is named. Have them identify ways to improve work habits.
  - Distinguish between habits and attitudes. Demonstrate how it is possible to have good work habits, but a poor attitude.
  - Explain the role of good work habits and attitudes in obtaining and retaining employment.
  - Distinguish between good and poor work habits and attitudes. Give examples.
  - Discuss the employer's expectations of the student on the job.

Nutrition

Instructor's Resource Package

LAP Sheets

Transparency Masters

Written Tests

Developed by the
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INSTRUCTOR'S RESOURCE PACKAGE

UNIT 1

- LAP Sheet
- Written Test
- Handout 1: "The Food Guide Pyramid"
- Handout 2: "Obesity"

UNIT 2

- LAP Sheet
- Written Test
- Handout 1: "Therapeutic Diets"
- Handout 2: "Adaptive Equipment"

LAP SHEET	APPLYING PRINCIPLES OF BASIC NUTRITION	1

Name _____

Check the blank as you complete each step.

1. Take	____	the pretest provided by your instructor. Have your instructor evaluate your completed test. After your test has been evaluated, follow your instructor's recommendations.
2. Read	____	the introduction, unit objective, and specific objectives.
3. Do	____	the focus assignments.
4. Stop	____	and have your instructor evaluate your work from the focus assignment. After your work has been evaluated, follow your instructor's recommendations.
5. Study	____	the Information Sheet, Objective 1.
Optional: Ask	____	your instructor for reinforcement games or crossword puzzles using terms from Objective 1.
6. Study	____	the Information Sheet, Objective 2-3.
Optional: Ask	____	your instructor to show pictures or models of sources of carbohydrates.
7. Study	____	the Information Sheet, Objective 4.
Optional: Ask	____	your instructor about symptoms of protein deficiency.
8. Study	____	the Information Sheet, Objectives 5-6.
Optional: Ask	____	your instructor to show models or pictures of sources of complete and incomplete proteins.

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9. **Study**	____	the Information Sheet, Objective 7.
Optional: **Ask**	____	your instructor to help you identify commonly used non-animal foods that could be combined in a meal to provide all of the necessary amino acids.
10. **Study**	____	the Information Sheet, Objective 8.
Optional: **Ask**	____	your instructor about the impact a diet high in fats can have on weight loss or gain.
11. **Study**	____	the Information Sheet, Objectives 9-10.
Optional: **Ask**	____	your instructor to show you different sources of saturated and unsaturated fats.
12. **Study**	____	the Information Sheet, Objectives 11-14.
Optional: **Ask**	____	your instructor how the body uses cholesterol.
Optional: **Study**	____	a printout from a lab test that shows cholesterol and triglyceride levels/ranges.
13. **Study**	____	the Information Sheet, Objective 15.
Optional: **Practice**	____	calculating the percentages of carbohydrates, proteins, and fats that a person consumes daily.
14. **Study**	____	the Information Sheet, Objective 16.
Optional: **Practice**	____	determining the number of calories in your favorite foods.
15. **Study**	____	the Information Sheets, Objective 17.
16. **Read**	____	Handout 2, "Obesity."

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17. **Study**	_____	the Information Sheet, Objectives 18-24.
Optional: List	_____	foods that are good sources of vitamins and minerals.
18. **Study**	_____	the Information Sheet, Objective 25.
Optional: Write	_____	a menu that includes sufficient fiber. Compare this menu to your typical diet.
19. **Do**	_____	Assignment Sheet 1.
20. **Stop**	_____	and have your instructor evaluate your work from Assignment Sheet 1. After your work has been evaluated, follow your instructor's recommendations.
21. **Record**	_____	your food intake for 24 hours.
22. **Do**	_____	Assignment Sheet 2.
23. **Stop**	_____	and have your instructor evaluate your work from Assignment Sheet 2. After your work has been evaluated, follow your instructor's recommendations.
24. **Take**	_____	the Posttest provided by your instructor. Have your instructor evaluate your completed test. After your test has been evaluated, follow your instructor's recommendations.

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WRITTEN TEST

APPLYING PRINCIPLES OF BASIC NUTRITION

1

Name _____ Score _____

OBJECTIVE 1

Match nutrients with their definitions. Write the letter of the correct answer in the blank provided. Some letters will not be used.

A. carbohydrates	B. proteins	C. water
D. vitamins	E. fats	F. minerals
G. fiber	H. calories	I. compounds
J. elements	K. functions	

_____ 1. Roughage; the natural structural part of plants; the indigestible carbohydrate portion of a food

_____ 2. Organic compounds (amino acids) composed of carbon, hydrogen, oxygen, and nitrogen

_____ 3. Chemical compounds of the elements carbon, hydrogen, and oxygen that are converted by the body into glucose and glycogen; sugars and starches

_____ 4. Elements which are used by the body in its regulatory functions and in forming some of its structures

_____ 5. Clear, colorless liquid composed of hydrogen and oxygen that accounts for 55-65% of an adult's body weight

_____ 6. Lipids; combinations of fatty acids and glycerol containing the elements carbon, hydrogen, and oxygen

_____ 7. Organic compounds needed in very small amounts for the regulation of various reactions in the cells

OBJECTIVE 2

Select the functions of carbohydrates. Write an "X" in the blank in front of the statement(s) that identify the functions of carbohydrates.

_____ 1. Keep tissue proteins from being broken down by the body for use as an energy source

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____ 2. Provide a quick source of energy and fuel for the body

____ 3. Provide lactose (milk sugar)

____ 4. Combine with minerals to form the bones and teeth

____ 5. Provide glucose, the only energy source for the central nervous system under normal conditions

____ 6. Conserve proteins for tissue building and repair

____ 7. Help manufacture vitamin D

____ 8. Help stabilize cell membranes for the transport of nutrients

____ 9. Prevent fats from being inefficiently combined with oxygen to be burned by the body cells for fuel and energy

OBJECTIVE 3

List examples of the principal sources of carbohydrates in the diet.

1. List four examples of plant sources.

_____

_____

_____

_____

2. List one example of an animal source.

_____

OBJECTIVE 4

Select the functions of proteins. Write an "X" in the blanks before each statement that identifies a function of protein.

____ 1. Help in producing an enzyme that releases energy from carbohydrates and fats

____ 2. Regulate the actions of potassium

____ 3. Help to maintain a normal amount of fluid in the bloodstream

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____ 4. Aid in maintaining a normal acid-base balance of the cells and bloodstream

____ 5. Help in conserving the body's supply of minerals

____ 6. Used to make body secretions, enzymes, hormones, and milk

____ 7. Combines with the mineral iron to form the hemoglobin in red blood cells

____ 8. Provide resistance to infection

____ 9. Transport some vitamins, minerals, and fats in the blood to various sites

____ 10. Help with normal blood clotting

____ 11. Can be used for heat and energy by the body cells

____ 12. Are necessary for the release of carbon dioxide from the cells

____ 13. Build and repair body tissues

OBJECTIVE 5

Distinguish between the characteristics of a complete and an incomplete protein. Write "C" in the blank in front of characteristics of a complete protein and an "I" in the blank in front of the characteristics of an incomplete protein.

____ 1. Build and repair tissues

____ 2. Found mostly in foods of animal origin

____ 3. Contain only part of the amino acids that cannot be produced by the human body

____ 4. Cannot maintain life or support growth by themselves

____ 5. Found mainly in foods of plant origin

____ 6. Contain the eight amino acids that cannot be produced by the adult body and must be supplied by the diet

May be photocopied for student use.

OBJECTIVE 6

Distinguish between sources of complete and incomplete proteins. Write "C" in the blank in front of the source of a complete protein and an "I" in the blank in front of the source of an incomplete protein.

____ 1. meat

____ 2. cereals

____ 3. beans

____ 4. gelatin

____ 5. peanuts

____ 6. eggs

____ 7. nuts

____ 8. milk

____ 9. peas

OBJECTIVE 7

Discuss the characteristics of complementary proteins. Include three characteristics in the discussion.

_____

_____

_____

_____

_____

OBJECTIVE 8

Select the functions of fat. Write the letter "X" in the blank before each statement that identifies a function of fat.

____ 1. Provides padding to protect vital organs from trauma

____ 2. Aids in the production of the skeletal structures of the body

____ 3. Needed for the transportation and absorption of fat-soluble vitamins

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____ 4. Responsible for the transport of digestive enzymes into the small intestine

____ 5. A more concentrated source of heat and energy than carbohydrates or proteins

____ 6. Stores energy in the adipose tissue of the body

____ 7. Supplies fatty acids which are needed for normal cells and metabolism and for the normal growth and maintenance of tissue

____ 8. Totally responsible for the energy that is needed for normal maintenance of the heart and blood vessels

____ 9. Acts as insulation for body temperature maintenance

____ 10. Slows digestion in the stomach

____ 11. Helps to spare dietary protein

OBJECTIVE 9

Distinguish between the characteristics of saturated and unsaturated fats. Write an "S" beside each statement that applies to saturated fats. Write a "U" beside each statement that applies to unsaturated fats.

____ 1. Can lower blood cholesterol levels when taken in the diet

____ 2. Usually of animal origin

____ 3. Liquid at room temperature

____ 4. Usually solid at room temperature

____ 5. Usually of plant origin

____ 6. Can be oily fats that have been converted to solid fats by the addition of hydrogen

____ 7. High in cholesterol if of animal origin

____ 8. May contain less essential fatty acids if hydrogen has been added to the product

May be photocopied for student use.

OBJECTIVE 10

Distinguish between sources of saturated and unsaturated fats. Write "S" in the blank in front of a saturated fat and "U" in the blank in front of an unsaturated fat.

____ 1. ice cream

____ 2. egg yolks

____ 3. lard

____ 4. meat fat

____ 5. whole milk cheese

____ 6. avocados

____ 7. chocolate

____ 8. cream or whole milk

____ 9. coconut and coconut oil

____ 10. soft margarine made from vegetable oils

____ 11. soybean oil

____ 12. freshwater fish

____ 13. butter

____ 14. hydrogenated vegetable shortenings

____ 15. salad dressings made from vegetable oils

____ 16. some poultry

May be photocopied for student use.

OBJECTIVE 11

Select the characteristics of cholesterol. Write an "X" in the blank in front of the characteristics of cholesterol.

____ 1. Normal component of the blood and all body cells

____ 2. Manufactured in the body primarily by the liver from food substances

____ 3. Used by the body to help manufacture vitamin D, adrenal gland hormones, sex hormones, and bile acids

____ 4. High blood levels may contribute to atherosclerosis

____ 5. Helps in the prevention of artery disease

____ 6. Known to be one cause of cancer in humans

____ 7. Stored in adipose tissue

____ 8. Fat-related substance found in fatty foods of animal origin

OBJECTIVE 12

Distinguish between foods with high cholesterol content and those that do not contain cholesterol. Write an "H" in the blank before foods with high cholesterol content and an "N" before foods that do not contain cholesterol.

____ 1. fruits

____ 2. lard

____ 3. baked products containing animal fat

____ 4. butter

____ 5. egg yolk

____ 6. whole milk cheese

____ 7. shellfish

____ 8. vegetables

____ 9. bacon

____ 10. egg whites

____ 11. organ meats

May be photocopied for student use.

OBJECTIVE 13

Select the characteristics of triglycerides. Write an "X" in the blank before each statement that identifies a characteristic of triglycerides.

____ 1. Found widely in food fat and body storage fat

____ 2. Necessary for the production of mucous by the mucous membrane linings of the body

____ 3. High blood levels may contribute to atherosclerosis

____ 4. Combinations of alcohol and fatty acids

____ 5. Also called cholesterols

OBJECTIVE 14

Select dietary sources of triglycerides. Write an "X" in the blank before each food that is a source of triglycerides.

____ 1. olives

____ 2. nuts

____ 3. grapes

____ 4. vegetable oils

____ 5. avocado

____ 6. beans

____ 7. bacon

____ 8. lard

____ 9. whole milk

____ 10. butter

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OBJECTIVE 15

Identify the correct percentages of fats, carbohydrates, and proteins that are recommended for the daily diet of a healthy adult. Circle the number of the correct percentage of fats, carbohydrates, and proteins that are recommended for the daily diet of the healthy adult.

1. fats: 5% of total calories
   proteins: 40% of total calories
   carbohydrates: 55% of total calories

2. fats: 22% of total calories
   proteins: 30% of total calories
   carbohydrates: 48% of total calories

3. fats: 30% of total calories
   proteins: 12% of total calories
   carbohydrates: 58% of total calories

4. fats: 45% of total calories
   proteins: 6% of total calories
   carbohydrates: 49% of total calories

OBJECTIVE 16

List the number of calories in one gram of carbohydrate, protein, and fat. Write the number of calories in one gram of each nutrient in the blank provided.

____ 1. fats

____ 2. carbohydrates

____ 3. proteins

OBJECTIVE 17

List the factors that affect an individual's energy requirements. List six factors.

_____

_____

_____

_____

_____

_____

May be photocopied for student use.

OBJECTIVE 18

Select the general characteristics of vitamins and minerals.
Write an "X" in the blank beside each statement that identifies the characteristics of vitamins and minerals.

____ 1. Not "energy" foods because they have no caloric value

____ 2. Essential to life

____ 3. Can be lost or destroyed during the storage or cooking process

____ 4. Will not relieve a physical illness unless the condition was caused by a lack of that particular vitamin or mineral

____ 5. Supplements are needed to provide sufficient amounts in the diet

____ 6. Provided in sufficient amounts for most people in a well-balanced diet that follows the guidelines of The Food Guide Pyramid

____ 7. Can cure many illnesses if taken in large amounts

OBJECTIVE 19

Distinguish between fat-soluble and water-soluble vitamins.
Write an "F" in the blanks before fat-soluble vitamins and a "W" in the blanks before water-soluble vitamins.

____ 1. vitamin A

____ 2. vitamin B_1

____ 3. vitamin B_2

____ 4. vitamin B_6

____ 5. vitamin B_{12}

____ 6. vitamin C

____ 7. vitamin D

____ 8. vitamin E

____ 9. vitamin K

____ 10. niacin

____ 11. folic acid

May be photocopied for student use.

OBJECTIVE 20

Distinguish between characteristics of fat-soluble and water-soluble vitamins. Write an "F" in the blank beside each statement that applies to fat-soluble vitamins. Write a "W" in the blank beside each statement that applies to water-soluble vitamins. One statement will apply to both fat-soluble and water-soluble vitamins.

____ 1. Usually not stored in the body if excess amounts are taken, because they are readily excreted in the urine

____ 2. Must be transported to various body sites in blood lipids

____ 3. Are removed from the digestive tract before absorption by the body if mineral oil is taken as a laxative near mealtime

____ 4. Can be lost in food when poor storage techniques result in wilting and dehydration of fresh items

____ 5. Not destroyed in foods by ordinary cooking methods

____ 6. Easily destroyed in foods by ordinary cooking methods

____ 7. Best preserved in prepared fruits and vegetables by cooking these items in a small amount of boiling water for a short time and by covering the cooking container

____ 8. Not absorbed properly by the digestive tract unless sufficient amount of fatty foods are included in the diet

____ 9. Can be stored in the body and cause toxic effects if excess amounts are taken

May be photocopied for student use.

OBJECTIVE 21

Choose the word or phrase to complete statements about the functions and major sources of fat-soluble vitamins. Write the letter of the correct answer in the blanks provided.

____ 1. Vitamin K necessary is necessary for

a. normal clotting of the blood
b. normal functioning of nerve tissue
c. control of the body's water balance
d. proper metabolism of iron

____ 2. Which vitamin is necessary for proper dim light vision?

a. vitamin E
b. vitamin A
c. vitamin C
d. vitamin B_1

____ 3. Which vitamin is important for the utilization and absorption of calcium?

a. vitamin C
b. vitamin D
c. vitamin B_2
d. vitamin B_1

____ 4. Egg yolks would be a good source of which of the following vitamins?

a. vitamins A, D, and E
b. vitamins B_1, B_2, and B_6
c. vitamins K, C, and B_{12}
d. niacin, folic acid, and biotin

____ 5. What organ manufactures vitamin K?

a. liver
b. colon
c. stomach
d. spleen

____ 6. Vitamin E is necessary for

a. stabilization of cell membranes
b. production of digestive enzymes
c. rebuilding of damaged skin
d. protection of nervous tissue

May be photocopied for student use.

OBJECTIVE 22

Choose the word or phrase to complete statements about the functions and major sources of water-soluble vitamins. Write the letter of the correct answer in the blanks provided.

____ 1. Which one of the following groups of foods will be the best source of most of the B-complex vitamins?

a. raw vegetables
b. yellow fruits
c. animal fats
d. whole-grain and enriched cereals

____ 2. Which vitamins are involved in the normal production of red blood cells?

a. vitamin A and niacin
b. vitamins B_1 and B_2
c. vitamin B_{12} and folic acid
d. vitamins C and D

____ 3. B-complex vitamins are essential for which of the following functions?

a. proper growth and functioning of muscle tissue
b. maintenance of a normal acid-base balance in the blood
c. proper metabolism of the nutrients in food
d. production of hormones and other fat-related substances

____ 4. Foods that are high in vitamin B_{12} content include which of the following?

a. cantaloupes, oranges, and watermelons
b. avocados, bananas, and potatoes
c. organ meats, eggs, and lean meat
d. walnuts, peanuts, and legumes

____ 5. Which of the following menus best meets the requirements for a vitamin especially important to tissue healing?

a. liver, mashed potatoes, and cooked carrots
b. baked chicken, steamed white rice, and canned peaches
c. roast pork, egg noodles, and baked squash
d. baked fish, mashed potatoes, and lettuce and tomato tossed salad

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OBJECTIVE 23

Match the commonly used names of selected vitamins to their chemical names. Write the letter of the correct answer in the blank provided.

Chemical Name

A. tocopherol
B. calciferol
C. cyanocobalamin
D. retinol
E. ascorbic acid
F. thiamine
G. menadione
H. biotin
I. pyridoxine hydrochloride
J. riboflavin
K. nicotinic acid
L. lactose
M. glucose
N. hormones
O. phytonadione

____ 1. vitamin A

____ 2. vitamin B_1

____ 3. vitamin B_2

____ 4. vitamin B_6

____ 5. vitamin B_{12}

____ 6. vitamin C

____ 7. vitamin E

____ 8. vitamin K

____ 9. niacin

____ 10. vitamin D

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OBJECTIVE 24

Choose the word or phrase to complete statements about the functions and major sources of selected minerals. Write the letter of the correct answer in the blanks provided.

____ 1. What are the two minerals important in the formation of sound bones and teeth?

a. iron and potassium
b. phosphorus and calcium
c. zinc and iron
d. sodium and magnesium

____ 2. Which of the following foods would be good sources of the minerals that are important in the formation of sound bones and teeth?

a. citrus fruits
b. yellow vegetables
c. milk products
d. red meats

____ 3. Iodine is a component of

a. bile salts
b. energy nutrients
c. thyroid hormones
d. blood proteins

____ 4. Which of the following is a good source of iodine?

a. seafood
b. nuts
c. liver
d. oatmeal

____ 5. Which three minerals are necessary for the normal action of muscles?

a. calcium, potassium, and sodium
b. potassium, sodium, and phosphorus
c. sodium, phosphorus, and iron

____ 6. Sodium is necessary for

a. transporting fatty acids in the bloodstream
b. the metabolism of fats and carbohydrates in the body cells
c. producing factors which help to clot the blood
d. maintaining the normal fluid balance of the body

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____ 7. What seasoning contains a large amount of sodium?

a. pepper
b. salt
c. saccharin
d. cinnamon

____ 8. What mineral is important for the formation of a substance in red blood cells called hemoglobin?

a. potassium
b. phosphorus
c. calcium
d. iron

____ 9. Which of the following protein foods help the most in the formation of normal hemoglobin?

a. whole milk cheese
b. chicken
c. fresh-water fish
d. red meat

____ 10. Oranges, bananas, and watermelon are all good sources of

a. sodium
b. potassium
c. iodine
d. iron

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OBJECTIVE 25

Choose the word or phrase to complete statements about the functions and major sources of fiber. Write the letter of the correct answer in the blank provided.

_____ 1. The functions of fiber include

a. providing a source of quick energy for the intestinal tract
b. increasing the amount of vitamins that are manufactured by the intestines
c. stimulating muscular movement of the walls of the intestines
d. speeding up digestion and metabolism in the intestinal tract

_____ 2. Which of the following food groups are principal sources of fiber?

a. whole grain rice, fruit, and vegetables
b. refined cereals, milk, and eggs
c. poultry, white bread, and processed foods
d. lean meats, fruit juices, and milk products

OBJECTIVE 26

Evaluated on Assignment Sheet.

OBJECTIVE 27

Evaluated on Assignment Sheet.

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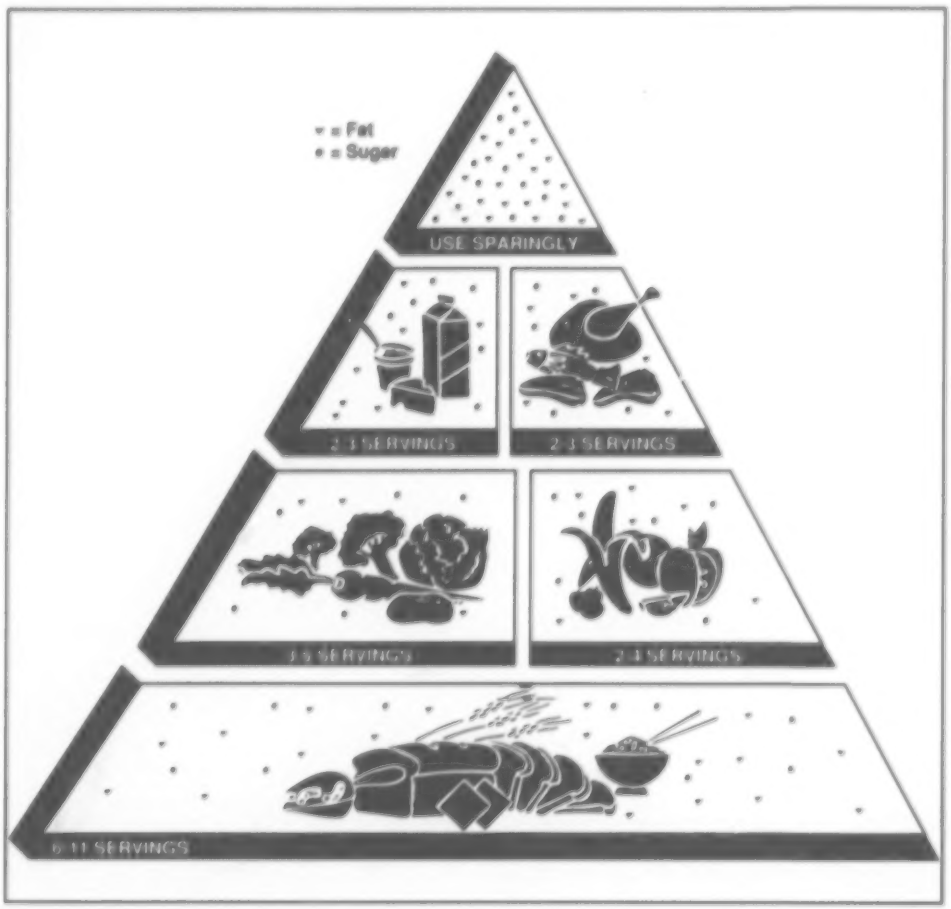
The Food Guide Pyramid

One of the best guarantees of an adequate diet is to include a variety of foods in the meal plan. The Food Guide Pyramid developed by the United States Department of Agriculture is a simple, easily remembered plan for choosing these foods.

The Food Guide Pyramid is very adaptable. There are adjustments in the plan that help to make it appropriate not only for adults without special needs but also for children, adolescents, pregnant girls and women, and nursing mothers.



Servings of the milk, yogurt, and cheese group are increased for the following groups:

Pregnant women or under 25 years old	3 servings
Pregnant or breastfeeding teens	4 servings

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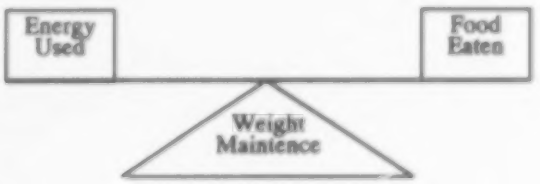
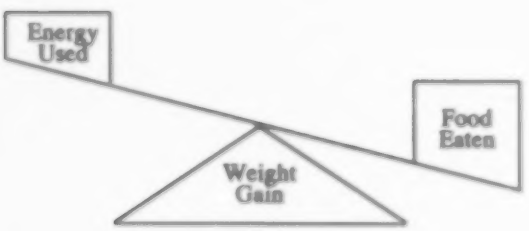
OBESITY

All living organisms take in oxygen, use it to burn food for energy and growth, and then excrete the wastes. This process is known as *metabolism*. The amount of energy (calories) used by the body when at rest is referred to as *basal metabolism*. Basal metabolism is the amount of energy needed to sustain life.

Calories measure the heat and energy value of foods. when you consume too many calories, the excess energy value is stored in the body primarily as structural protein and adipose tissue. In other words, if you take in more calories than you need, you gain weight.





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Obesity is defined as weighing 20% over desirable standards. *Morbid obesity* is characterized by weighing 100 pounds above the standard weight for a person's height, age, and sex. Simple weight can be deceiving. For example, an athlete may weigh more than the standard because muscle weighs more than fat. Obesity may be caused by genetic factors or psychologic and social factors.

It is possible that a restricted diet may actually result in weight *gain*. Metabolism may be slowed down so much that the body responds by conserving energy. An individual who wants to gain weight can decrease activity and decrease caloric intake. Safe, gradual weight loss is achieved through behavior modification, including regular exercise and decreased intake of fats and "empty" calories. For drastic cases, surgeries such as gastric partitioning may be considered.

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LAP SHEET	APPLYING PRINCIPLES OF DIET THERAPY	2

Name _____

Check the blank as you complete each step.

1. Take	____	the pretest provided by your instructor. Have your instructor evaluate your completed test. After your test has been evaluated, follow your instructor's recommendations.
2. Read	____	the introduction, unit objective, and specific objectives.
3. Do	____	the focus assignments.
4. Stop	____	and have your instructor evaluate your work from the focus assignment. After your work has been evaluated, follow your instructor's recommendations.
5. Study	____	the Information Sheet, Objective 1.
Optional: Study	____	articles and advertisements in newspapers and magazines for examples of food information.
6. Study	____	the Information Sheet, Objectives 2-9.
Optional: Study	____	misconceptions about food poisoning.
Optional: Write	____	a short (1 paragraph to 1 page) description of actions you take at home to ensure food safety.
7. Study	____	the Information Sheet, Objectives 10-11.
8. Read	____	Handout 2, "Adaptive Equipment."

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9. **Study**	____	the Information Sheet, Objective 12.
Optional: Ask	____	your instructor to provide a mock hospital tray. Determine which foods would be appropriate for selected diets.
10. **Do**	____	Assignment Sheet 1.
11. **Stop**	____	and have your instructor evaluate your work from Assignment Sheet 1. After your work has been evaluated, follow your instructor's recommendations.
12. **Do**	____	Assignment Sheet 2.
13. **Stop**	____	and have your instructor evaluate your work from Assignment Sheet 2. After your work has been evaluated, follow your instructor's recommendations.
14. **Ask**	____	your instructor to demonstrate the guidelines and procedures in Job Sheet 1. Use the Job Sheet to follow along. Pay careful attention to any guidelines, cautions, and warnings.
15. **Practice**	____	the procedures demonstrated by your instructor. Use the Job Sheet as a guide.
16. **Stop**	____	and have your instructor evaluate your work from Job Sheet 1. After your work has been evaluated, follow your instructor's recommendations.
17. **Ask**	____	your instructor to demonstrate the guidelines and procedures in Job Sheet 2. Use the Job Sheet to follow along. Pay careful attention to any guidelines, cautions, and warnings.
18. **Practice**	____	the procedures demonstrated by your instructor. Use the Job Sheet as a guide.
19. **Stop**	____	and have your instructor evaluate your work from Job Sheet 2. After your work has been evaluated, follow your instructor's recommendations.
20. **Take**	____	the Posttest provided by your instructor. Have your instructor evaluate your completed test. After your test has been evaluated, follow your instructor's recommendations.

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WRITTEN TEST

APPLYING PRINCIPLES OF DIET THERAPY

2

Name _____ Score _____

OBJECTIVE 1

Select the factors that influence food habits. Write an "X" in the blank beside each factor that influences food habits.

____ 1. Income

____ 2. Personal attitudes

____ 3. Age

____ 4. Religious beliefs

____ 5. Mass communication

____ 6. Mobility of the population

____ 7. Region and availability

____ 8. Attitudes about personal hygiene

____ 9. Nationality and culture

____ 10. Food misinformation

____ 11. Political beliefs

____ 12. Emotional and physical health status

____ 13. Income

OBJECTIVE 2

Choose the word or phrase to complete statements about the effects of excessive nutrients in the diet. Write the letter of the correct answer in the blank provided.

____ 1. There is evidence that the excessive intake of fats and proteins in the diet can lead to

a. heart disease
b. kidney stones
c. bowel inactivity
d. hormone disturbances

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2. Tooth and gum disease is most closely related to the excessive intake of

   a. proteins
   b. fats
   c. carbohydrates
   d. minerals

3. Liver damage may result from exceeding the recommended intake of

   a. magnesium or water-soluble vitamins
   b. magnesium or fat-soluble vitamins
   c. iron or water-soluble vitamins
   d. iron or fat-soluble vitamins

4. The thyroid gland may cease to function if a person continually consumes too much

   a. zinc
   b. iodine
   c. calcium
   d. phosphorus

5. High blood pressure may be associated with a chronic over-consumption of

   a. niacin
   b. chlorine
   c. sodium
   d. iron

6. An excessive amount of potassium in the body could be dangerous because this condition might cause

   a. narrowing of the arteries that supply blood to the brain
   b. failure of the kidneys to remove toxic wastes from the body
   c. inefficiency of the lungs in exchanging oxygen for carbon-dioxide
   d. disturbances in the rate and rhythm of the heart

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OBJECTIVE 3

Select reasons for the two primary causes of nutritional deficiency.

1. Write an "X" in the blank beside each reason for an inadequate intake of food.

   ____ a. Inappropriate therapeutic diets

   ____ b. Emotional disturbances

   ____ c. Consumption of nutrient-deficient food

   ____ d. Alcoholism

   ____ e. Poor food habits

   ____ f. Seasonal changes in the climate

   ____ g. Anorexia due to disease

   ____ h. Anemia

   ____ i. Fatigue due to moderate exercise

   ____ j. Lack of proper food because of poverty

2. Write an "X" in the blank beside each reason for an inadequate use of ingested food.

   ____ a. Faulty absorption in the digestive tract due to poor dietary practices

   ____ b. Faulty absorption in the digestive tract due to gastrointestinal diseases

   ____ c. A decrease in the production of the reproductive hormones

   ____ d. Food allergies and intolerances

   ____ e. Food preferences

   ____ f. Metabolic disturbances

   ____ g. Reduced manufacture of vitamins in the intestinal tract following oral antibiotic therapy

   ____ h. A rapid gain in body weight

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OBJECTIVE 4

Select the disorders and assessment data associated with carbohydrate deficiencies. Write an "X" in the blank before the disorders or assessment data associated with carbohydrate deficiencies.

____ 1. Lack of glucose for use by the body cells

____ 2. Mental and emotional changes

____ 3. Skin infections

____ 4. Sore and bleeding gums

____ 5. Presence of strong acids called ketones in the blood and urine

____ 6. Diarrhea

____ 7. Anemia

____ 8. Loss of weight and muscle wasting

____ 9. Excessive skin pigmentation

OBJECTIVE 5

Select the disorders and assessment data associated with protein deficiencies. Write an "X" in the blank before the disorders and assessment data associated with protein deficiencies.

____ 1. Anemia

____ 2. Edema in the tissues

____ 3. Weakness

____ 4. Convulsions

____ 5. Retarded wound healing

____ 6. Growth failure

____ 7. Weight loss and muscle wasting

____ 8. Lowered resistance to infection

____ 9. Excessive production of intestinal gas

____ 10. Paralysis of the muscles

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OBJECTIVE 6

Choose the word or phrase to complete statements about the disorders and assessment data associated with deficiencies of selected vitamins. Write the letter of the correct answer in the blank provided.

____ 1. A deficiency of which water-soluble vitamins can lead to various types of anemias?

a. vitamins B_1 B_2, and B_6
b. vitamins K, B_1 and folic acid
c. vitamins C, B_1, B_2, and niacin
d. vitamins B_6, B_{12}, and folic acid

____ 2. A deficiency of many of the B-complex vitamins will affect the

a. urinary system (kidney stones, urinary tract infections, kidney failure)
b. skeletal system (joint pains and deformities, easily fractured bones)
c. respiratory system (frequent respiratory infections, attacks of shortness of breath)
d. nervous system (nerve pains, paralysis, and numbness of the extremities, confusion)

____ 3. Rickets is a disease affecting children who have a deficiency of

a. vitamin C
b. vitamin D
c. vitamin A
d. vitamin E

____ 4. Persons who are deficient in vitamin K will have

a. decreases in hormone production
b. abnormal clotting of the blood
c. disturbances in nutrient absorption
d. frequent urinary tract infections

____ 5. What physical evidence might suggest a patient's diet is deficient in vitamin A?

a. shrinking and hardening of the skin and mucous membranes
b. malformed teeth
c. excessive hair growth
d. muscle wasting and weakness

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6. Night blindness can be due to a dietary deficiency of

   a. vitamin D
   b. vitamin B_6
   c. vitamin A
   d. vitamin K

7. A lack of vitamin C in the diet will produce

   a. diarrhea, dermatitis, and dementia
   b. muscle weaknesses, abdominal distention, and dizziness
   c. aching joints, bleeding gums, and bruises on the skin
   d. fatigue, weight loss, and muscle cramps

OBJECTIVE 7

Choose the word or phrase to complete statements about the disorders and assessment data associated with deficiencies of selected minerals. Write the letter of the correct answer in the blank provided.

1. Disturbances in cardiac rate and rhythm may be caused by a deficiency of

   a. iron
   b. iodine
   c. sodium
   d. potassium

2. A deficiency of iron in the diet will cause

   a. anemia
   b. dermatitis
   c. visual defects
   d. osteomalacia

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____ 3. The patient suffering from a sodium deficiency may complain to the nurse

a. "I didn't sleep well last night. I heard every noise in the hall."
b. "I think I gain weight every day. My legs are full of fluid."
c. "I can't walk today. I feel weak and I'm having muscle cramps."
d. "I can't eat today. Everything tastes like metal or spoiled meat."

____ 4. Too little iodine in the diet can cause a person to develop a/an

a. ulcer
b. goiter
c. tumor
d. cyst

____ 5. Children who have a deficiency of calcium may develop

a. scurvy
b. rickets
c. dermatitis
d. asthma

OBJECTIVE 8

State three types of food poisoning and give an example of each type.

Food poisoning	Example
_____	_____
_____	_____
_____	_____

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OBJECTIVE 9

Identify nursing actions that can prevent the transmission of disease-producing organisms or their toxins in foods. Write an "X" in the blank before each nursing action that might prevent the transmission of disease-producing organisms or their toxins in foods.

____ 1. You diplomatically persuade family members not to serve the patient brewed iced tea from a thermos that they have brought from home. These family members live in the same town in which the hospital is located.

____ 2. The patient tells you that the chicken in his casserole is not well-cooked. You examine the casserole and notice that the chicken is oozing pink fluid. You return the chicken casserole to the dietary department and obtain another meat dish for the patient.

____ 3. You carefully warm a hospital-made liquid tube feeding to room temperature before giving it to the patient. You do so by taking the feeding from the refrigerator; putting it in a clean, covered container; and allowing it to sit in the clean utility room for at least two hours.

____ 4. You open a can of soup which you plan to heat and serve to the patient. Because the contents of the can do not smell "quite right," you taste the warmed soup repeatedly before serving it to the patient.

____ 5. A patient requests that you serve him a milkshake that contains raw, beaten eggs. You explain to the patient that raw eggs may carry live bacteria that could be harmful. You suggest that the patient take some other nourishment.

____ 6. You call to inform your director that you will be unable to do bedside patient care until your physician allows you to do so. You tell the director that the physician has just determined that the "sores" on your hands are caused by a staphylococcal infection.

____ 7. You wear examination gloves as you empty and clean a patient's bedpan. The bedpan contains some fecal material.

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OBJECTIVE 10

Discuss nursing interventions used to increase a patient's intake of food. Below are two patient situations that might be encountered by the nurse. Discuss nursing interventions to be used in each situation. Make your answers as complete as possible.

Situation 1: Mrs. Fuentes is being treated for an irritable bowel syndrome with a gastrointestinal anticholinergic drug. This drug has actions which cause Mrs. Fuentes to complain of a dry mouth and a "funny taste to the food." She will not eat. Her doctor has ordered a special diet for this patient. She is to have no "concentrated sweets"—foods which contain a large amount of table sugar. She is allowed as much fluid during the day as she desires.

Situation 2: Mr. Watkins has a hyperactive gag reflex. He also has problems with heartburn after eating. He will take very little orally because of these problems.

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OBJECTIVE 11

Discuss nursing interventions for feeding problems caused by a disability. Below are two patient situations. Discuss solutions to feeding problems due to a disability that might be used in these situations. Make your answer as complete as possible.

Situation 1: Mrs. Everett has a neurological disease. The symptoms are partially controlled by medication. However, Mrs. Everett has poor coordination and difficulty in grasping objects. She wants to help feed herself.

_____

_____

_____

_____

_____

Situation 2: Mr. Bishop is recovering from an accident. He wants to feed himself, but he has not yet regained his upper body strength.

_____

_____

_____

OBJECTIVE 12

Choose the word or phrase to complete statements about the characteristics of selected therapeutic diets. Write the letter of the correct answer in the blank provided.

_____ 1. A patient is on a clear liquid diet. Which of the following foods would be allowed on a clear liquid diet?

a. grape popsicle, beef bouillon, and apple juice
b. strained cooked cereal, sherbet, and coffee
c. cream of tomato soup, gelatin, and tea
d. mineral water, custard, and cocoa

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____ 2. Many times, a clear liquid diet is ordered for a person who has a disorder of the

a. nervous system
b. urinary tract
c. respiratory tract
d. digestive tract

____ 3. Which of the following meals meets the specifications for a full liquid diet?

a. bananas, broiled squash, and custard
b. cream of tomato soup, chocolate ice cream, and coffee
c. chopped sweet potatoes, ground beef, and tea
d. cottage cheese, custard, and milk

____ 4. All of the diets below can be used for a person who has difficulty in chewing. Which one would be *least* nutritionally adequate for long-term use?

a. clear liquid diet
b. full liquid diet
c. pureed diet
d. edentulous diet

____ 5. A pureed diet is prepared for consumption by

a. mixing the food with liquid tenderizers
b. squeezing the juice from foods and discarding it
c. adding digestive enzymes to the food
d. chopping the food and running it through a sieve

____ 6. In most institutions, patients whose conditions do not require dietary modifications receive a diet called the

a. selective diet
b. regular diet
c. balanced diet
d. non-restrictive diet

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____ 7. When a tonsillectomy patient recovers from anesthesia and tells the nurse that he/she is thirsty, which juice would be most appropriate to offer if the patient is not nauseated?

a. cranberry juice
b. grape juice
c. apple juice
d. orange juice

____ 8. When the patient is served the first few meals after a tonsillectomy, which apparatus is usually not allowed?

a. teaspoon
b. plastic glass
c. drinking straw
d. shallow soup bowl

____ 9. A patient with ill-fitting dentures would probably be served a _____ diet.

a. clear liquid
b. edentulous
c. full liquid
d. T and A

OBJECTIVE 13 **Evaluated on Assignment Sheet 1.**

OBJECTIVE 14 **Evaluated on Assignment Sheet 2.**

OBJECTIVE 15 **Evaluated on Job Sheet 1.**

OBJECTIVE 16 **Evaluated on Job Sheet 2.**

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May be photocopied for student use.

THERAPEUTIC DIETS

INTRODUCTION

The following pages give details on therapeutic diets that the practical nurse will see ordered for patients on a routine basis. There are many other diets that the health care practitioner will encounter less frequently. The *Oklahoma Diet Manual* and similar books should be used as reference sources for these diets.

WORDS YOU SHOULD KNOW	
atherosclerosis	a narrowing of arteries caused by deposits of fatty substances and other materials on the linings of the arterial walls
electrolyte	substance such as potassium or sodium that becomes a conductor of electricity when dissolved in water

Diet	Rationale for diet	Disorders for which diet is ordered	Foods permitted	Foods omitted or limited	Nutritional adequacy
ADA Diet (American Diabetes Association and American Dietetic Association Exchange List for Meal Planning)	Prescribed by a physician to help normalize blood glucose levels and to help diabetics reach and maintain an ideal body weight. ☑ **NOTE:** Many nutritionists are recommending that the diabetic's diet should be high in fiber and low in fat content.	Diabetes mellitus (a disease that involves improper carbohydrate metabolism)	Measured amounts of foods from six "exchange lists." The exchange lists are as follows: • Starch/bread group • Meat group • Vegetable group • Fruit group • Milk group • Fat group	"Concentrated carbohydrates"—foods with a high sugar content: pies, cakes, jellies, jams, carbonated beverages, etc. ☑ **NOTE:** Occasionally, diabetics on the ADA diet are allowed small portions of some "sweets," including ice cream, angel food cake, and cookies.	Nutritionally adequate for long-term use.

Diet	Rationale for diet	Disorders for which diet is ordered	Foods permitted	Foods omitted or limited	Nutritional adequacy
American Heart Association	Prescribed to control the intake of saturated fats and cholesterol in an effort to prevent the development of arteriosclerosis and damage to the arteries which supply blood to the heart muscle; also prescribed to control the intake of sodium. (Excessive sodium intake may lead to fluid retention and increased blood pressure).	Patients at risk of developing heart disease caused by damage to arteries that surround the heart	• Limited amounts of certain foods: red meats; eggs (only two per week); fats of plant origin (liquid vegetable oils; unsalted nuts, etc) 3 oz. of liver a month; one serving of shrimp, lobster or sardines a week • Foods low in animal fat—skim milk and low-fat dairy products; fish and skinless poultry; fruits and vegetables; grain products such as whole grain or white bread; rice; macaroni • Foods low in sodium—low sodium buttermilk, low sodium salad dressings, fruit juices, etc. • Sweets and desserts which are not prepared with saturated or animal fats	• Foods high in animal fat—whole milk, cream, butter, lard, fatty meats, etc. • Foods prepared with animal fat—vegetables with butter sauces, gravies made with animal drippings • Foods prepared with hydrogenated vegetable shortenings • Foods that contain saturated fats of plant origin. Chocolate and coconut contain saturated fats. • Foods high in sodium—salted nuts and chips; pickles; sauerkraut; cured ham; frankfurters; corned beef; baking powder and baking soda.	If well planned, can be nutritionally adequate for long-term use; could be deficient in iron and fat-soluble vitamins if not well planned.

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Diet	Rationale for diet	Disorders for which diet is ordered	Foods permitted	Foods omitted or limited	Nutritional adequacy
Bland	Prescribed to prevent chemical irritation to the mucous membrane lining of the upper gastrointestinal tract (throat, esophagus, and stomach)	Acute and chronic upper gastro-intestinal disorders—ulcers and cancer of the throat, esophagus or stomach; inflammation of the throat, esophagus, or stomach; hiatus hernia (a condition where gastric contents can enter the esophagus and cause irritation)	All those that the patient can tolerate. (Those foods that do not produce distress symptoms—burning vomiting, pain, etc.) Foods that are known to cause irritation to the mucous membranes of the upper gastro-intestinal tract are omitted.	Known irritants to the mucous membrane lining of the upper gastro-intestinal tract: black and red pepper, alcohol, chocolate, cocoa, coffee, decaffeinated coffee ☑ **NOTE:** Decaf-feinated and regular coffee both stimulate the stomach to produce excessive hydrochloric acid, which can irritate an ulcer.	Nutritionally adequate for long-term use
Low fat (gallbladder diet)	Helps to lessen fat-induced contractions of the gallbladder and pancreas (these contractions can cause abdominal pain); lessen the secretion of potentially irritating digestive enzymes designed to break down fats for absorption	Cholecystitis (inflam-mation of the gall-bladder); chole-lithiasis (gall stones); pancreatitis (inflam-mation of the pancreas); conditions that affect the body's ability to absorb fat (cirrhosis of the liver, intestinal by-pass surgery, etc)	Skim milk, lowfat milk and milk products (cheese, yogurt); eggs not prepared with fat; baked, broiled, roasted, or stewed red meats, poultry or fish; fresh frozen, canned, or dried fruits and vege-tables; breads, rice and pastas	Whole milk or whole milk products, pork, bacon, oil-packed fish, organ meats, gravies, cream sauces, avocado, fried foods, choco-late, coconut, nuts, pastries	Can be nutritionally adequate, if well-planned, for long-term use; care must be taken to provide patient with sources of fat-soluble vitamins

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Diet	Rationale for diet	Disorders for which diet is ordered	Foods permitted	Foods omitted or limited	Nutritional adequacy
Low fiber	Ordered to lessen the irritating effect of fiber on the mucous membrane lining of the colon and to decrease the muscular movements of the walls of the colon; also ordered to reduce the amount of fecal material in the large bowel before X-rays or colon surgery	Diarrhea, gastrointestinal disturbances; pre- and post-operative periods for surgery of the large bowel (colon) or preparation for X-rays ordered	Milk; ice cream; cheese; eggs; beef; poultry; organ meats; pork; fish; smooth peanut butter; fruit and vegetable juices; canned fruits and vegetables not containing seeds, skins, or peels; fine-textured breads, cereals, flours and pastas	Crunchy peanut butter; nuts; dried peas and beans; fruits and vegetables containing seeds, skins and peels; whole grain breads, cereals, and flours; brown rice, popcorn	Can be nutritionally adequate for long-term use with careful planning
High fiber	Used to stimulate muscular contractions of the intestinal walls to promote the elimination of fecal material and to draw water into the bowel in order to soften the stool. ☑ **NOTE:** Research is indicating that the high fiber diet may be protective against colorectal cancers, may lower cholesterol levels, and may help in the treatment of diabetes mellitus.	Constipation; diverticulosis (a disease of the colon where pouches or sacs are found in the intestinal wall)	All foods are permitted. The following types of foods should be increased in the diet: nuts; dried peas and beans; whole grain products—crackers, cereals, muffins and breads; bran; raw, high fiber fruits and vegetables such as apples, bananas, berries, oranges, carrots, cabbage	None	Nutritionally adequate for long-term use.

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Diet	Rationale for diet	Disorders for which diet is ordered	Foods permitted	Foods omitted or limited	Nutritional adequacy
Low protein (renal diet)	In renal (kidney) disease, this diet is ordered to prevent the toxic accumulation of too much urea in the bloodstream and to prevent fluid and electrolyte imbalances. In liver disease, this diet is prescribed to prevent the toxic accumulation of ammonia in the bloodstream and to prevent fluid and electrolyte imbalances. ☑ **NOTE:** Ammonia is one of the by-products of protein breakdown by the body. A damaged or diseased liver sometimes cannot change ammonia to a substance which can be removed from the bloodstream by the kidneys.	Kidney diseases; liver diseases	Measured and limited amounts of certain meats, milk and dairy products; vegetables and fruits; bread and cereal products; and fats. Certain "calorie boosters" are added to this diet to provide enough calories for the body's energy needs and to spare proteins for their essential functions. "Calorie boosters" include non-diet carbonated beverages, hard candies, and jam and jellies.	Foods high in protein such as milk and meat are limited. Foods high in sodium are avoided. The patient is limited in the amount of liquid taken in a twenty-four hour period. Sometimes, the patient is limited as to the amount of potassium consumed in foods.	If the patient's protein restriction is great, this diet will be deficient in minerals and B-complex vitamins. Can be nutritionally adequate for long-term use if carefully planned and if the protein restriction is not too great.

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Diet	Rationale for diet	Disorders for which diet is ordered	Foods permitted	Foods omitted or limited	Nutritional adequacy
Sodium restricted (salt restricted) ☑ **NOTE:** Table salt is high in sodium content.	Used to promote the removal of excess fluids from the body's tissues and vascular system	Congestive heart failure; high blood pressure; kidney disease; cirrhosis of the liver	There are varying degrees of sodium restriction. The following are examples: • No added salt diet • 4 gram sodium diet • 2 gram sodium diet • 1 gram sodium diet ☑ **NOTE:** Many raw and fresh fruits are low in sodium and can be used as desired with a sodium restricted diet.	• No added salt diet — A regular diet is served but no table salt is allowed. • 4 gram sodium diet — No table salt served with meals. Small amounts allowed in cooking. Intake of high soidum foods is limited. • 2 gram sodium diet — No table salt served with meals. Small amounts allowed in cooking. Intake of high sodium foods is limited. Sodium compounds are used as preservatives or flavorings are avoided. • 1 gram sodium diet — No salt is used in cooking or served with meals. There are strict limitations on sodium-containing foods.	If well-planned, can be adequate for long-term use. In a severely restricted sodium diet, it may be difficult to maintain nutritional adequacy.

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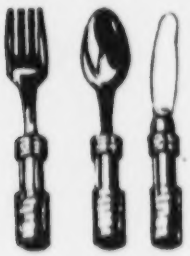
ADAPTIVE EQUIPMENT

INTRODUCTION

Pictured here are pieces of equipment that can be used for persons with disabilities so that they can become more self-sufficient in feeding themselves.



Built-up handled utensils

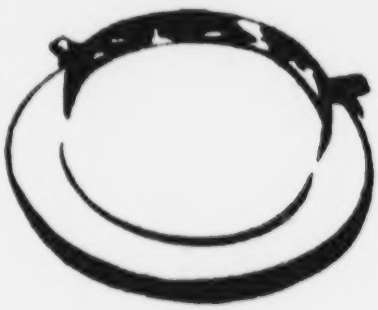
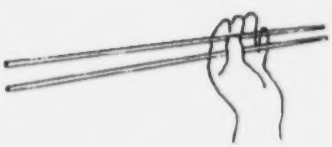


Plate guard

Scoop dish

Covered plastic cup

Rocker knife



Long straws

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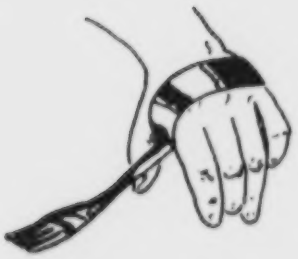
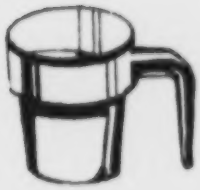
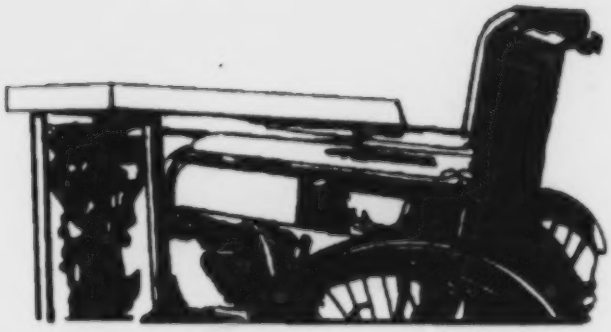


Universal cuff with utensil



Quad-grip cup

Long-handled utensils



Elevated table

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Nutrition

Student Workbook

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TABLE OF CONTENTS

One set per unit of Objective Sheets, Information Sheets, Assignment Sheets, and Job Sheets for the following units:

UNIT 1

Applying Principles of Basic Nutrition 1-1

UNIT 2

Applying Principles of Diet Therapy 2-1

OBJECTIVE SHEET

APPLYING PRINCIPLES OF BASIC NUTRITION 1

INTRODUCTION

Proper nutrition is very important in maintaining a state of wellness in each individual. The practical nurse (PN) must deal with problems and questions regarding dietary intake almost every day. The PN can also use information about nutrition for personal benefit. Given the high physical demands of nursing today, every nurse should seek to improve and maintain personal health through the practice of healthy food habits.

PREREQUISITE

Body Structure and Function, Nursing Concepts

FOCUS ASSIGNMENTS

Reading Comprehension
- Gain factual information
- Analyze cause and effect
- Draw conclusions

Language
- Use standard grammar, spelling, and capitalization
- State ideas clearly

Composition
- Use complete sentences

FOCUS ASSIGNMENTS	
PREREADING:	Read Handout 1, "The Food Guide Pyramid." As you read, pay special attention to the food groupings and the number of servings in each.
WRITING:	Write a short (one paragraph) discussion of how you may be able to use the new food pyramid to make healthy eating choices.

UNIT OBJECTIVE

After completing this unit, you will show the following competencies by mastering the activities on the Assignment and Job Sheets and by scoring at least 85% on the Written Test.

SPECIFIC OBJECTIVES

After completing this unit, you will be able to:

1. Match nutrients with their definitions.
2. Select the functions of carbohydrates.

3. List examples of the principal sources of carbohydrates in the diet.

4. Select the functions of proteins.

5. Distinguish between the characteristics of a complete and an incomplete protein.

6. Distinguish between sources of complete and incomplete proteins.

7. Discuss the characteristics of complementary proteins.

8. Select the functions of fat.

9. Distinguish between the characteristics of saturated and unsaturated fats.

10. Distinguish between sources of saturated and unsaturated fats.

11. Select the characteristics of cholesterol.

12. Distinguish between foods that have high cholesterol content and those that do not contain cholesterol.

13. Select the characteristics of triglycerides.

14. Select dietary sources of triglycerides.

15. Identify the correct percentages of fats, carbohydrates, and proteins that are recommended for the daily diet of a healthy adult.

16. List the number of calories in one gram of carbohydrate, protein, and fat.

17. List the factors that affect an individual's energy requirements.

18. Select the general characteristics of vitamins and minerals.

19. Distinguish between fat-soluble and water-soluble vitamins.

20. Distinguish between characteristics of fat-soluble and water-soluble vitamins.

21. Choose the word or phrase to complete statements about the functions and major sources of fat-soluble vitamins.

22. Choose the word or phrase to complete statements about the functions and major sources of water-soluble vitamins.

23. Match the commonly used names of selected vitamins to their chemical names.

24. Choose the word or phrase to complete statements about the functions and major sources of selected minerals.

25. Choose the word or phrase to complete statements about the functions and major sources of fiber.

26. Calculate the caloric value in meals and analyze daily menus. (Assignment Sheet 1)

27. Evaluate menus for nutritional adequacy. (Assignment Sheet 2)

OBJECTIVE 1

Optional Activities/ Resources in Instructor's Guide

Match nutrients with their definitions.

WORDS YOU SHOULD KNOW	
compound	a substance composed of two or more elements or parts
element	a substance that cannot be broken down into simpler substances by chemical means
glycerol	a fat-related liquid contained in all food fats and in the body fat stores
glycogen	a substance stored in the liver and muscles that can be converted rapidly into glucose; the storage form of carbohydrates

- **water** — clear, colorless liquid composed of hydrogen and oxygen that accounts for 55-65% of an adult's body weight
- **carbohydrates** — chemical compounds of the elements carbon, hydrogen, and oxygen that are converted by the body into glucose and glycogen; sugars and starches
- **proteins** — organic compounds (amino acids) composed of carbon, hydrogen, oxygen, and nitrogen; the only dietary source of nitrogen
- **fats** — lipids; combinations of fatty acids and glycerol containing the elements carbon, hydrogen, and oxygen

  ☑ **NOTE:** Fats contain the same elements as carbohydrates, but in different proportions.

- **vitamins** — organic compounds needed in very small amounts for the regulation of various reactions in the cells
- **minerals** — elements which are used by the body in its regulatory functions and in forming some of its structures

- **fiber** — roughage; the natural structural part of plants; the indigestible carbohydrate portion of a food

OBJECTIVE 2

Select the functions of carbohydrates.

Optional Activities/ Resources in Instructor's Guide

WORDS YOU SHOULD KNOW	
glucose	a simple sugar, formed by the breakdown of carbohydrates, that is utilized by the body cells for energy; blood sugar; dextrose

- Provide a quick source of energy and fuel for the body (Carbohydrates are digested and absorbed into the blood-stream more rapidly than proteins and fats.)

  ☞ **NOTE:** Proteins and fats are also energy foods.

- Conserve proteins for tissue building and repair

  ☞ **NOTE:** The provision of energy is only a secondary function for proteins. Carbohydrates need to be included in the diet and used for body heat and energy purposes so proteins are spared for their primary purpose.

- Keep tissue proteins (such as that found in muscle) from being broken down by the body for use as an energy source

- Prevent fats from being inefficiently combined with oxygen to be burned by the body cells for fuel and energy

  ☞ **NOTE:** If adequate carbohydrates are not present in the diet, fats are over-utilized for the production of energy. Using fat for energy produces strong acids, called *ketones*, which accumulate in the blood and urine.

- Provide glucose, the only energy source for the central nervous system under normal conditions

- Provide lactose (milk sugar)

  ☞ **NOTE:** Lactose encourages the growth of favorable intestinal bacteria, has laxative properties, and enhances the absorption of calcium.

OBJECTIVE 3

Optional Activities/ Resources in Instructor's Guide

List examples of the principal sources of carbohydrates in the diet.

- plant sources
  - grains and grain products

    EXAMPLES: Breads, cereals, pasta (macaroni, spaghetti), rice
  - sugar and sugar products

    EXAMPLES: Honey, corn syrup, molasses, candy
  - starchy vegetables

    EXAMPLES: Potatoes, peas, beans, corn, sweet potatoes, winter squash, black-eyed peas
  - fruits

    EXAMPLES: Bananas, apples, pears
- animal sources
  - milk

    ☑ **NOTE:** Milk contains lactose (milk sugar).

OBJECTIVE 4

Optional Activities/ Resources in Instructor's Guide

Select the functions of proteins.

WORDS YOU SHOULD KNOW	
enzyme	a protein that causes or increases the rate of a chemical reaction without being changed itself

- Build and repair body tissues
- Help to maintain a normal amount of fluid in the bloodstream (the blood protein albumin draws water into the blood vessels)
- Aid in maintaining a normal acid-base balance of the cells and bloodstream

- Used to help make body secretions, enzymes, hormones, and milk
- Combines with the mineral iron to form the hemoglobin in red blood cells

  ☑ **NOTE:** Without normal hemoglobin, individuals are subject to anemia.
- Provide resistance to infection

  ☑ **NOTE:** Antibodies are proteins that respond to the presence of microorganisms and their poisons (toxins) in the body.
- Transport some vitamins, minerals, and fats in the blood to various sites
- Help with normal blood clotting (some blood coagulation factors are proteins)
- Can be used for heat and energy by the body cells

OBJECTIVE 5

Optional Activities/ Resources in Instructor's Guide

Distinguish between the characteristics of a complete and an incomplete protein.

WORDS YOU SHOULD KNOW	
amino acids	the building blocks of which proteins are constructed

- complete proteins
  - Contain the eight amino acids that cannot be produced by the adult body and must be supplied by the diet

    ☑ **NOTE:** There are 22 amino acids, of which 20 are common. In the adult, the body cells are equipped with enzymes that can combine substances to produce 12 of these amino acids. The eight that cannot be manufactured by the body must be supplied by the intake of complete proteins in the diet. A source of complete protein should be eaten at every meal.
  - Found mostly in foods of animal origin
  - Build and repair tissues

- incomplete proteins
  - contain only part of the amino acids that cannot be produced by the human body
  - cannot maintain life or support growth by themselves
  - found mainly in foods of plant origin

OBJECTIVE 6

Optional Activities/ Resources in Instructor's Guide

Distinguish between sources of complete and incomplete proteins.

- complete proteins
  - meat
  - milk
  - eggs
- incomplete proteins
  - cereals
  - nuts
  - peanuts
  - peas
  - beans
  - gelatin

☑ **NOTE:** Gelatin is the only animal source of incomplete proteins.

OBJECTIVE 7

Optional Activities/ Resources in Instructor's Guide

Discuss the characteristics of complementary proteins.

- Incomplete protein foods that can be combined in the diet to provide the amino acids found in complete proteins
- Proteins that are from vegetable origin

- Used by vegetarians to maintain health

  EXAMPLE: Pinto beans and cornbread can be served in the same meal in order to provide the amino acids that would be found in a complete protein.

OBJECTIVE 8

Select the functions of fat.

Optional Activities/ Resources in Instructor's Guide

WORDS YOU SHOULD KNOW	
adipose tissue	groups of cells in the body that store fats
soluble	capable of being dissolved

- A more concentrated source of heat and energy than carbohydrates or proteins
- Helps to spare dietary protein
- Stores energy in the adipose tissue of the body
- Slows digestion in the stomach

  ☑ **NOTE:** A fatty meal remains in the stomach longer and prevents quick return of the feeling of hunger.

- Needed for the transportation and absorption of fat-soluble vitamins
- Provides padding to protect vital organs from trauma
- Acts as insulation for body temperature maintenance
- Supplies fatty acids which are needed for normal cells and metabolism and for the normal growth and maintenance of tissue

OBJECTIVE 9

Distinguish between the characteristics of saturated and unsaturated fats.

Optional Activities/ Resources in Instructor's Guide

- saturated fats
  - Usually solid at room temperature

- Can be oily fats that have been converted to solid fats by the addition of hydrogen (hydrogenation)
- Usually of animal origin
- High in cholesterol if of animal origin
- May contain less essential fatty acids if hydrogen has been added to the product

  ☛ **NOTE:** Essential fatty acids are those that cannot be manufactured by the body.

- unsaturated fats
  - Liquid at room temperature
  - Usually of plant origin
  - Can lower blood cholesterol levels when taken in the diet

OBJECTIVE 10

Optional Activities/ Resources in Instructor's Guide

Distinguish between sources of saturated and unsaturated fats.

- saturated fats
  - animal origin
    - meat fat
    - egg yolks
    - lard
    - butter
    - cream or whole milk
    - ice cream
    - whole milk cheese
  - plant origin
    - chocolate
    - coconut and coconut oil

- hydrogenated vegetable shortenings

  ☛ **NOTE:** Sources of invisible fat include the saturated fats hidden in meat, milk, egg yolk, and chocolate. Invisible fat is not readily detectable by looking at a product.

- unsaturated fats
  - plant origin
    - vegetable oils that have not had hydrogen added, such as corn oil, sunflower oil, soybean oil, peanut oil
    - soft margarine made from vegetable oils
    - salad dressings made from vegetable oils that have not had hydrogen added
    - avocados, variety of nuts

      ☛ **NOTE:** Avocados and nuts contain invisible fat.
  - animal origin
    - freshwater fish
    - some poultry

OBJECTIVE 11

Select the characteristics of cholesterol.

Optional Activities/ Resources in Instructor's Guide

- Fat-related substance found in fatty foods of animal origin
- Normal component of the blood and all body cells, especially brain and nerve tissue
- Used by the body to help manufacture vitamin D, adrenal gland hormones, sex hormones, and bile acids
- Manufactured in the body primarily by the liver from food substances

  ☛ **NOTE:** There are two sources of cholesterol for the body—manufacture by the liver and ingestion of foods.

- High blood levels may contribute to atherosclerosis, a degenerative disease of the arteries, and to disease of the arteries that supplies the heart muscle with blood

OBJECTIVE 12

Optional Activities/ Resources in Instructor's Guide

Distinguish between foods with high cholesterol content and those that do not contain cholesterol.

? Start a discussion with the question, "Can a non-fat food have cholesterol in it?"

- high cholesterol content
  - shellfish: lobsters, oysters
  - egg yolk
  - organ meats: brains, liver, kidney
  - animal fat
    - whole milk (which contains cream)
    - whole milk cheese
    - butter
    - lard
    - bacon
    - meat fat
    - baked products containing animal fat
- no cholesterol
  - egg whites
  - fruits
  - vegetables

OBJECTIVE 13

Optional Activities/ Resources in Instructor's Guide

Select the characteristics of triglycerides.

- Combinations of alcohol and fatty acids
- Found widely in food fat and body storage fat

  ☞ **NOTE:** Most food fats and adipose tissue are in triglyceride form.

- High blood levels may contribute to atherosclerosis and to disease of the arteries that supply the heart muscle with blood

OBJECTIVE 14

Optional Activities/ Resources in Instructor's Guide

Select dietary sources of triglycerides.

- all fats of animal origin
  - butter
  - whole milk
  - lard
  - bacon
- all fats of plant origin
  - avocado
  - vegetable oils
  - nuts
  - olives

OBJECTIVE 15

Optional Activities/ Resources in Instructor's Guide

Identify the correct percentages of fats, carbohydrates, and proteins that are recommended for the daily diet of a healthy adult.

Correct percentages of fats, carbohydrates, and proteins that are recommended for the daily diet of the healthy adult:

- carbohydrates — 58% of the daily intake of calories
- fats — 30% of the daily intake of calories
- proteins — 12% of the daily intake of calories

OBJECTIVE 16

Optional Activities/ Resources in Instructor's Guide

List the number of calories in one gram of carbohydrate, protein, and fat.

WORDS YOU SHOULD KNOW	
calorie	a unit of measurement that determines the heat or energy value of a food
nutrient	a substance in a food that contributes to the proper functioning or structure of the body
gram	a metric unit of weight

☑ **NOTE:** Foods vary in the amount of energy they contain. For example, a chocolate malt or candy bar will produce more energy than an apple. Three nutrients contain calories — carbohydrates, proteins, and fats.

Number of calories in one gram of:

- carbohydrates — 4 calories per gram
- protein — 4 calories per gram
- fat — 9 calories per gram

EXAMPLES

½ cup orange juice

10 grams carbohydrate × 4 calories =	40
0 grams protein	-
0 grams fat	-
Total calories	40

2 poached eggs

0 grams carbohydrate	
14 grams protein × 4 calories =	56
11 grams fat × 9 calories =	99
Total calories	155

1 slice toast

15 grams carbohydrate × 4 calories =	60
2 grams protein × 4 calories =	8
0 grams fat	-
Total calories	68

1 cup whole milk	
12 grams carbohydrate × 4 calories =	48
8 grams protein × 4 calories =	32
8 grams fat × 9 calories =	72
Total calories	152
1 teaspoon margarine	
0 grams carbohydrate	
0 grams protein	
5 grams fat × 9 calories =	45
Total calories	45
1 teaspoon strawberry jam	
14 grams carbohydrate × 4 calories =	56
0 grams protein	-
0 grams fat	-
Total calories	56

Total number of calories in this meal = 516

☞ **NOTE:** The number of grams of carbohydrates, proteins, and fats that are contained in most of the above listed food items was taken from the Diabetic Exchange List. Other sources you consult may vary slightly from these lists in nutrient and caloric values.

OBJECTIVE 17

Required Activities/ Resources
- Handout

List the factors that affect an individual's energy requirements.

📖 Read Handout 2, "Obesity."

WORDS YOU SHOULD KNOW	
metabolism	all of the physical and chemical processes in an organism by which energy is made available and by which the living matter of cells and tissues is produced, maintained, and destroyed

An individual's calorie requirement is the number of calories needed by the body in a 24-hour period. Calorie requirement varies from person to person, depending on

- amount of physical activity
- age
- size

- sex
- physical condition
- climate

OBJECTIVE 18

Select the general characteristics of vitamins and minerals.

Optional Activities/ Resources in Instructor's Guide

- Not "energy" foods because they have no caloric value
- Essential to life
- Will not relieve a physical illness unless the condition was caused by a lack of that particular vitamin or mineral
- Provided in sufficient amounts for most people in a well-balanced diet that follows the guidelines of The Food Guide Pyramid
- Can be lost or destroyed during the storage or cooking process

OBJECTIVE 19

Distinguish between fat-soluble and water-soluble vitamins.

Optional Activities/ Resources in Instructor's Guide

- fat-soluble
  - vitamin A (retinol)
  - vitamin D
  - vitamin E (tocopherol)
  - vitamin K (phytonadione)
- water-soluble
  - vitamin C (ascorbic acid)
  - b-complex vitamin B_1 (thiamine)
  - b-complex vitamin B_2 (riboflavin)
  - b-complex vitamin B_6 (pyridoxine hydrochloride)
  - b-complex vitamin B_{12} (cyanocobalamin)

- niacin (nicotinic acid)
- folic acid

OBJECTIVE 20

Optional Activities/ Resources in Instructor's Guide

Distinguish between characteristics of fat-soluble and water-soluble vitamins.

- fat-soluble vitamins
  - Can be stored in the body and cause toxic (poisonous) effects if excess amounts are taken
  - Are removed from the digestive tract before absorption by the body if mineral oil is taken as a laxative near mealtime
  - Not absorbed properly by the digestive tract unless a sufficient amount of fatty foods are included in the diet
  - Must be transported to various body sites in blood lipids
  - Can be lost in foods when poor storage techniques result in wilting and dehydration of fresh items
  - Not destroyed in foods by ordinary cooking methods
- water-soluble vitamins
  - Usually not stored in the body if excess amounts are taken because they are readily excreted in the urine (vitamin B_{12} is the exception to this rule; it is stored in the liver)
  - Can be lost in food when poor storage techniques result in wilting and dehydration of fresh items
  - Easily destroyed in foods by ordinary cooking methods
  - Best preserved in prepared fruits and vegetables by cooking these items in a small amount of boiling water for a short time and by covering the cooking container

    ☞ **NOTE:** Vitamin C is best obtained in the diet from fresh, raw fruits and vegetables.

OBJECTIVE 21 **Choose the word or phrase to complete statements about the functions and major sources of fat-soluble vitamins.**

Optional Activities/ Resources in Instructor's Guide

VITAMIN	FUNCTIONS	MAJOR SOURCES
Fat-soluble vitamins		
vitamin A (retinol)	Component of the visual pigments in the retina of the eyes (these pigments are necessary for dim light vision) Necessary for maintenance of the epithelial tissue of the skin and mucous membranes ☞ **NOTE:** Epithelial tissues are those cells that line the outer surface of the body and the body cavities.	liver, whole milk, cream, butter, cheese, fortified margarine, egg yolk, green and yellow vegetables, yellow fruits
vitamin D (calciferol)	Regulates calcium and phosphorus metabolism by assisting in the process of: 1. Intestinal absorption of calcium and phosphorus 2. The release of calcium and phosphorus from the bone into the bloodstream	action of sunshine on skin, vitamin D milk (fortified milk), egg yolks, liver

VITAMIN	FUNCTIONS	MAJOR SOURCES
vitamin E (tocopherol)	Helps to stabilize cell membranes, including the membranes of red blood cells ☛ **NOTE:** It is claimed that vitamin E is effective in treating burns and heart conditions, improving sexual performance and retarding aging. There is no concrete evidence to support these claims.	vegetable oils, egg yolk ☛ **NOTE:** If vegetable oils are allowed to become rancid, their vitamin E content is destroyed.
vitamin K (phytonadione)	Essential for normal clotting of the blood; helps in the manufacture of prothrombin (one of the clotting factors)	manufactured by bacteria in the colon green leafy vegetables, liver, cauliflower, cabbage

OBJECTIVE 22

Choose the word or phrase to complete statements about the functions and major sources of water-soluble vitamins.

Optional Activities/ Resources in Instructor's Guide

VITAMIN	FUNCTIONS	MAJOR SOURCES
Water-soluble vitamins		
vitamin B_1 (thiamine)	Necessary for the release of energy from carbohydrates, fats, and proteins (involved in carbohydrate, fat, and protein metabolism) Thought to be involved in the supply of energy to the nervous system	whole grain and enriched cereals, pork, legumes, liver (legumes are beans, peas, or lentils) ☛ **NOTE:** Thiamine can be lost from foods when baking soda is added to the cooking water.

VITAMIN	FUNCTIONS	MAJOR SOURCES
vitamin B_2 (riboflavin)	Necessary for the release of energy from carbohydrates, fats, and proteins (involved in carbohydrate, fat, and protein metabolism)	whole grain and enriched cereals, milk, green leafy vegetables, liver ☞ **NOTE:** When food products are exposed to light, they may lose some riboflavin content.
vitamin B_6 (pyridoxine hydrochloride)	Involved in protein metabolism and may be involved in the intestinal absorption of amino acids Thought to convert amino acids to substances that assist in the transmission of nerve impulses	whole grain cereals, meat (especially organ meat), legumes and nuts ☞ **NOTE:** Vitamin B_6 is easily destroyed by light.
vitamin B_{12} (cyanocobalamin)	Involved in the production of normal red blood cells in the bone marrow Needed for the maintenance of myelin (a white, fatty material that covers some nerve fibers) ☞ **NOTE:** In order for vitamin B_{12} to be properly absorbed from the intestine, an enzyme called the *intrinsic factor* must be present in the stomach.	found in animal protein foods—lean meat, organ meats, eggs, dairy products
niacin (nicotinic acid)	Necessary for release of energy from carbohydrates, proteins, and fats (involved in carbohydrate, protein and fat metabolism)	enriched breads and cereals, organ meats, legumes, nuts
folic acid	Involved in the production of normal red blood cells in the bone marrow	green leafy vegetables, liver, asparagus, lima beans

VITAMIN	FUNCTIONS	MAJOR SOURCES
vitamin C (ascorbic acid)	Helps in the formation and maintenance of collagen (a basic structural protein of the cartilage, bones, teeth, blood vessels, tendons, and skin) Necessary for wound and tissue healing Needed for the proper absorption of iron Aids in the maintenance of resistance to infection	citrus fruits (limes, oranges, lemons) tomatoes, cabbage, potatoes, strawberries ☞ **NOTE:** Vitamin C is the vitamin most easily destroyed in foods.

OBJECTIVE 23

Optional Activities/ Resources in Instructor's Guide

Match the commonly used names of selected vitamins to their chemical names.

Common Name	Chemical Name
vitamin A	retinol
vitamin B_1	thiamine
vitamin B_2	riboflavin
vitamin B_6	pyridoxine hydrochloride
vitamin B_{12}	cyanocobalamin
vitamin C	ascorbic acid
vitamin D	calciferol
vitamin E	tocopherol
vitamin K	phytonadione
niacin	nicotinic acid

OBJECTIVE 24 **Choose the word or phrase to complete statements about the functions and major sources of selected minerals.**

Optional Activities/
Resources in
Instructor's Guide

MINERAL	FUNCTIONS	MAJOR SOURCES
calcium	One of the most important factors in making and maintaining normal bones and teeth Involved in muscle contractions and relaxation ☑ **NOTE:** In the absence of calcium, muscles lose their ability to contract. Helps to maintain regular contractions of the heart muscle Aids in the clotting of the blood Aids in transmission of nerve impulses	milk and milk products, egg yolks, green leafy vegetables
iodine	A component of several thyroid hormones	seafood, iodized salt

MINERAL	FUNCTIONS	MAJOR SOURCES
iron	Necessary for the formation of hemoglobin (the substance in red blood cells that carries oxygen) ☞ **NOTE:** Many pregnant women, premenopausal women, and infants need more iron than is usually available in their food. Usually, only 10% of the iron in food may be absorbed. In order to increase the absorption rate, a person should eat animal protein, vitamin C sources, and foods high in iron in the same meal.	liver, red meats, egg yolks, nuts, enriched whole grains, legumes
phosphorus	Necessary for the formation of bones and teeth Aids in the metabolism of fats and carbohydrates Helps carry fatty acids in the bloodstream	milk, milk products, fish, poultry, legumes
potassium	Needed for normal action of muscle tissue, especially heart muscle Plays a role in the conduction of nerve impulses Helps to regulate the acid-base balance of the blood Helps to maintain the correct amount of fluid in the body cells Involved in carbohydrate and protein metabolism	whole grain cereals, dried peas and beans, oranges, bananas, watermelon, fresh fish

MINERAL	FUNCTIONS	MAJOR SOURCES
sodium	Very important in maintaining the water volume necessary for the fluid that surrounds the cells Helps to maintain the normal amount of fluid in the bloodstream Helps to maintain the proper acid-base balance in the blood Necessary for proper functioning of nerve and muscle tissue	table salt, baking powder, baking soda, cheese, processed foods

OBJECTIVE 25

Optional Activities/ Resources in Instructor's Guide

Choose the word or phrase to complete statements about the functions and major sources of fiber.

- Functions of fiber
  - Thought to help prevent cancer of the colon
  - Thought to have a possible role in the treatment of diabetes mellitus, high fat blood levels, and some colon diseases
  - Draws water into the fecal material of the colon, making it softer

    ☛ **NOTE:** In order for fiber to be effective in softening the stool, the individual must be drinking adequate amounts of fluid.
  - Stimulates muscular movement of the walls of the intestines, causing fecal material to be transported through the digestive tract

    ☛ **NOTE:** There are different types of fiber. Cellulose, pectin, and gum are some examples.
- The principal sources of fiber
  - Whole grains and grain products

- Vegetables — raw and unpeeled
- Fruits — raw and unpeeled
- Nuts, seeds, and legumes

☞ **NOTE:** Most people in the United States do not obtain enough fiber in their diet.

OBJECTIVE 26

Complete Assignment Sheet 1.

Optional Activities/ Resources in Instructor's Guide

OBJECTIVE 27

Complete Assignment Sheet 2.

Optional Activities/ Resources in Instructor's Guide

ASSIGNMENT SHEET 1	*APPLYING PRINCIPLES OF BASIC NUTRITION*	**4**

Name _____ Score _____

OBJECTIVE 26

Calculate the caloric value in meals and analyze daily menus.

INSTRUCTIONS

On the following pages are listed the foods offered with three meals. Also listed is the carbohydrate, protein, and fat content of each food. Use the information from Objective 16 to calculate the caloric value of each food and the caloric value of each meal. Show your math calculations on this paper.

☑ **NOTE:** Keep Assignment Sheet 1 answers to complete Assignment Sheet 2.

Operation and Calculation
- Calculate with whole numbers

Math Application
- Solve word problems
- Select/apply mathematical formula
- Select/apply mathematical procedure

Cognitive Activities
- Collect/record information
- Analyze/synthesize information
- Evaluate alternatives

Part 1 — Breakfast

grapefruit (1)	20 grams carbohydrate 0 grams protein 0 grams fat Number of calories _____
cornflakes (¾ cup)	15 grams carbohydrate 2 grams protein 0 grams fat Number of calories _____
hardboiled egg (1)	0 grams carbohydrate 7 grams protein 5.5 grams fat Number of calories _____
English muffin (½)	15 grams carbohydrate 2 grams protein 0 grams fat Number of calories _____
skim milk (1 cup)	12 grams carbohydrate 8 grams protein 0 grams fat Number of calories _____
coffee (1 cup)	0 grams carbohydrate 0 grams protein 0 grams fat Number of calories _____
table sugar (1 Tbsp)	12 grams carbohydrate 0 grams protein 0 grams fat Number of calories _____

Total number of calories for breakfast _____

Part 2 — Lunch

tomato juice (½ cup)	5 grams carbohydrate 2 grams protein 0 grams fat Number of calories _____
turkey breast (3 oz.)	0 grams carbohydrate 14 grams protein 6 grams fat Number of calories _____

whole wheat bread (2 slices)	30 grams carbohydrate 4 grams protein 0 grams fat Number of calories _____	
potato chips (10)	10 grams carbohydrate 1 grams protein 8 grams fat Number of calories _____	
raw peach (1 medium)	10 grams carbohydrate 0 grams protein 0 grams fat Number of calories _____	
mayonnaise (1 tsp)	0 grams carbohydrate 0 grams protein 5 grams fat Number of calories _____	
tea (1 glass)	0 grams carbohydrate 0 grams protein 0 grams fat Number of calories _____	
	Total number of calories for lunch_____	

Part 3 — DINNER

corned beef (3 oz.)	0 grams carbohydrate 14 grams protein 11 grams fat Number of calories _____	
cabbage (1 cup)	10 grams carbohydrate 4 grams protein 0 grams fat Number of calories _____	
carrots (½ cup)	5 grams carbohydrate 2 grams protein 0 grams fat Number of calories _____	
cornbread (2″×2″×1″ slice)	15 grams carbohydrate 2 grams protein 5 grams fat Number of calories _____	

butter (1 tsp)	0 grams carbohydrate 0 grams protein 5 grams fat Number of calories _____
strawberry ice cream (1 cup)	32 grams carbohydrate 5 grams protein 14 grams fat Number of calories _____
water (1 glass)	0 grams carbohydrate 0 grams protein 0 grams fat Number of calories _____
	Total number of calories for dinner _____

Part 4

A patient is receiving intravenous fluids. These fluids are the patient's only "meals" since he is to receive nothing by mouth. The intravenous fluid is 5% dextrose in water. Each liter of fluid contains 50 grams of glucose (a carbohydrate). The patient is to receive three liters of fluid in 24 hours. How many calories will the patient receive in 24 hours? Show your math calculations on this paper.

Number of calories received in 24 hours _____

Part 5

Place an "X" in the blank next to the meal that is highest in calories. Show your math calculations on this paper.

____ Meal I — 26 grams of fat, 20 grams of protein, and 88 grams of carbohydrates

____ Meal II — 28 grams of fat, 18 grams of protein, and 88 grams of carbohydrates

____ Meal III — 24 grams of fat, 20 grams of protein, and 90 grams of carbohydrates

ASSIGNMENT SHEET 2

APPLYING PRINCIPLES OF BASIC NUTRITION

1

Name _____ Score _____

OBJECTIVE 27

Evaluate menus for nutritional adequacy.

INSTRUCTIONS

Reading Comprehension
- Gain factual information

Language
- Use standard grammar, spelling, and capitalization
- State ideas clearly

Operation and Calculation
- Calculate with whole numbers

Data Analysis and Display
- Interpret charts and tables

Life Science
- Investigate health issues

The Food Guide Pyramid is used many times as a simple way to evaluate a diet for nutritional adequacy.

Part 1

Use Handout 1, "The Food Guide Pyramid," as a resource to evaluate the menus in parts 1-3 of Assignment Sheet 1. Determine if they provide the essential daily nutrients for a healthy adult without special needs. Answer each question that follows the meal plan.

1. Do this day's menus meet the guidelines of the Food Pyramid?

   _____

2. If this day's menus do not meet the guidelines of the Food Pyramid, what would you do to improve the menus?

   _____

   _____

   _____

3. Which meal was the highest in fat? _____
4. Which meal was the highest in protein? _____
5. Which meal was the highest in carbohydrate? _____

Part 2

Keep a record of your food intake for 24 hours. Use Handout 1, "The Food Guide Pyramid," to evaluate your dietary intake.

1. Do this day's menus meet the guidelines of the Food Pyramid?

   _____

Cognitive Activities

- Collect/record information
- Identify cntical elements/issues
- Analyze/synthesize information
- Create a finished product
- Develop an action plan

Job Acquisition/ Development

- Master specific job task/procedure

2. If this day's menus do not meet the guidelines of the Food Pyramid, what would you do to improve the menus?

_____

_____

_____

3. Which meal was the highest in fat? _____

4. Which meal was the highest in protein? _____

5. Which meal was the highest in carbohydrate? _____

6. Do this day's menus meet the guidelines of the Food Pyramid?

_____

7. If this day's menus do not meet the guidelines of the Food Pyramid, what would you do to improve the menus?

_____

_____

_____

OBJECTIVE SHEET

APPLYING PRINCIPLES OF DIET THERAPY

2

INTRODUCTION

The majority of practical nurses are employed in hospitals and nursing homes. In these institutions, the practical nurse is involved daily in providing nourishment at the bedside to ill or elderly patients. The PN must be able to ensure that patients safely receive an adequate and therapeutic diet.

PREREQUISITE

"Applying Principles of Basic Nutrition"

You should also be able to relieve airway obstructions using diaphragmatic thrusts and be able to perform pharyngeal and tracheal suctioning procedures.

FOCUS ASSIGNMENTS

Reading Comprehension
- Gain factual information
- Analyze cause and effect
- Draw conclusions

Language
- Use standard grammar, spelling, and capitalization
- State ideas clearly

Composition
- Use complete sentences

FOCUS ASSIGNMENTS	
PREREADING:	Read Handout 1, "Therapeutic Diets." As you read, pay special attention to the foods that are permitted and omitted for therapeutic diets.
WRITING:	Select one therapeutic diet. Write a short (one to two paragraphs) discussion of how you would have to change your diet if you had to follow the therapeutic diet you selected

UNIT OBJECTIVE

After completing this unit, you will show the following competencies by mastering the activities on the Assignment and Job Sheets and by scoring at least 85% on the Written Test.

SPECIFIC OBJECTIVES

1. Select the factors that influence food habits.
2. Choose the word or phrase to complete statements about the effects of excessive nutrients in the diet.
3. Select reasons for the two primary causes of nutritional deficiency.
4. Select the disorders and assessment data associated with carbohydrate deficiencies.
5. Select the disorders and assessment data associated with protein deficiencies.
6. Choose the word or phrase to complete statements about the disorders and assessment data associated with deficiencies of selected vitamins.
7. Choose the word or phrase to complete statements about the disorders and assessment data associated with deficiencies of selected minerals.
8. State three types of food poisoning and give an example of each type.
9. Identify nursing actions that can prevent the transmission of disease-producing organisms or their toxins in foods.
10. Discuss nursing interventions used to increase a patient's intake of food.
11. Discuss nursing interventions for feeding problems caused by a disability.
12. Choose the word or phrase to complete statements about the characteristics of selected therapeutic diets.
13. Use the nursing process to improve a patient's dietary intake. (Assignment Sheet 1)
14. Teach a patient about a therapeutic diet. (Assignment Sheet 2)
15. Feed a sighted or blind patient. (Job Sheet 1)
16. Feed a patient with dysphagia. (Job Sheet 2)

INFORMATION SHEET	APPLYING PRINCIPLES OF DIET THERAPY	2

OBJECTIVE 1

Select the factors that influence food habits.

Optional Activities/ Resources in Instructor's Guide

Identifying factors that influence food habits is an important part of collecting assessment data. If you know that a patient dislikes a particular food, or because of religious practices will not eat or drink certain foods, problems can be avoided and appropriate substitutes planned.

- Personal attitudes
  - Childhood training and experiences

    EXAMPLE: A child forced to eat spinach may avoid eating it as an adult.
  - Food preferences of family and friends

    EXAMPLE: Teenagers are influenced by their peer groups to eat certain foods.
  - Method of food preparation

    EXAMPLE: Persons who hate stewed okra will often eat fried okra.
  - Education and travel

    EXAMPLE: A person who travels during college or while in the military service may acquire a taste for foods that were not eaten during high school years.
- Region and availability
  - Persons cannot consume foods that are not readily available to them.

    EXAMPLE: Most West Texans do not eat papayas or mangoes because these fruits are not grown in the region.
  - Many foods are characteristic of a certain region.

    EXAMPLE: Pork parts rarely served anywhere else in the United States are consumed in the South. These parts include the pig's intestines (chitterlings) and its feet.

- Income

  EXAMPLE: Some elderly persons with reduced incomes are not receiving adequate nutrition because they cannot afford to purchase expensive complete protein foods.

- Age

  - Alters a person's emotional response to the consumption of nutrients

    EXAMPLES: Adolescent girls are frequently confused and troubled about their bodies and will try crash diets in order to lose weight. Also, lonely, elderly widows will not prepare the same quality of meals that they did when their husbands were alive.

  - Alters a person's physical condition so that the person no longer wants to consume or is unable to consume the same foods eaten in the past

    EXAMPLES: The digestive enzyme lactose, which assists in the digestion of milk sugar, is much more active in infants than in adults. Many persons who could tolerate milk as infants can no longer tolerate it as adults. Also, many elderly persons have lost part of their ability to taste and smell. This leads to a decreased appetite.

- Religious beliefs

  - Seventh-Day Adventists — This group does not eat meat, but will eat some animal products, such as milk and eggs.

  - The Church of Jesus Christ of Latter-Day Saints (Mormons) — This group prohibits the use of tobacco and alcohol and forbids the use of tea and coffee.

  - Muslims (Islamic religion) — This group forbids the consumption of animal foods such as pork, animal shortening, and gelatin, and discourages the use of alcohol, tea, and coffee. They also prohibit the use of animal meat unless the animals are slaughtered according to prescribed ritual.

- Orthodox Jews — This group prohibits the use of animal blood, pork, and fish without fins or scales. They require that meats and poultry be slaughtered and processed according to a prescribed ritual. Meat and dairy products cannot be served at the same meal, and separate utensils and dishes must be used to prepare and serve meat and milk dishes.

  ☛ **NOTE:** Not all Jewish people follow Orthodox practices.

- Food misinformation

  - The use of nutritionally inadequate fad diets can seriously alter body metabolism.

  - Expensive "health foods" may not be worth the money spent on them.

  - There may be a reliance on foods or vitamins and minerals to cure a health problem that is best treated by other methods.

- Nationality and culture

  EXAMPLES: People of Mexican-American heritage may have a traditional diet based largely on these plant foods: chili peppers, corn, and dried beans. They may consume less animal proteins than other groups. Italian-Americans include bread and pasta as an important part of the diet. Olive oil is widely used by this group for cooking and seasoning.

- Mass communication

  - People may be exposed to new food habits through advertisements, magazine articles, and food programs on radio and television.

- Mobility of the population

  - As people move from one location to another, their ethnic and regional food habits are spread.

    ☛ **NOTE:** The dietary habits of national and regional groups in the U.S. are rapidly becoming more like each others. In years to come, there may be a "typical" American diet in every part of the country.

- Emotional and physical health status

  EXAMPLES: Anorexia nervosa is a psychological disorder found chiefly in female adolescents. It is a type of self-induced starvation. Persons suffering from emphysema, a lung disease causing shortness of breath, lack the energy to prepare proper meals, and therefore suffer from malnutrition.

OBJECTIVE 2

Optional Activities/ Resources in Instructor's Guide

Choose the word or phrase to complete statements about the effects of excessive nutrients in the diet.

WORDS YOU SHOULD KNOW	
hyperkalemia	elevated blood potassium level
hypernatremia	elevated blood sodium level

- Excessive carbohydrates

  ☑ **NOTE:** The consumption of empty-calorie foods that satisfy hunger may prevent a person from eating other foods that are richer in essential nutrients. Many empty-calorie foods, such as soft drinks and other products containing refined sugar, have a high content of simple carbohydrates.

  - ☐ An increased incidence of tooth and gum disease
  - ☐ Obesity
  - ☐ Irritation of the gastrointestinal tract
  - ☐ Depression of the appetite

- Excessive fats

  - ☐ Obesity
  - ☐ Decreased digestion and absorption of food products, including calcium
  - ☐ Increased risk of brain damage, heart disease, diabetes mellitus, and kidney failure

- Excessive proteins
  - Excessive calcium losses through the kidneys
  - Possible increased risk of heart and blood vessel disease
- Excessive intake of fat-soluble vitamins
  - Gastrointestinal disturbances
  - Damage to soft organs such as the kidneys and liver
  - Kidney stones
- Excessive intake of minerals
  - Iron — Tissue damage to the heart and liver
  - Iodine — Suppression of the functions of the thyroid gland
  - Sodium (hypernatremia) — A fluid overload in the tissues and bloodstream; possibly high blood pressure in chronic sodium excess
  - Potassium (hyperkalemia) — Disturbances in the rate and rhythm of the heart

OBJECTIVE 3

Optional Activities/ Resources in Instructor's Guide

Select reasons for the two primary causes of nutritional deficiency.

WORDS YOU SHOULD KNOW	
anorexia	lack of appetite
malabsorption	an inadequate transfer of nutrients from the intestinal tract into the bloodstream or lymph channels
metabolic	pertaining to the body processes that produce energy and produce, maintain, and destroy the living matter of cells and tissues

☑ **NOTE:** The two primary causes of nutritional deficiency are an inadequate intake and an inadequate use of ingested foods.

- Inadequate intake caused by
  - Poor food habits
  - Consumption of nutrient-deficient food

    EXAMPLE: While being processed for consumption, some foods have essential nutrients removed from them. This is especially true of grain products used for cereals or bread.
  - Anorexia due to disease — anorexia is a symptom of many diseases
  - Alcoholism — alcoholics usually do not have an adequate intake of food because of the appetite depressing effects of alcohol and because alcohol causes an inflammation of the stomach lining
  - Inappropriate therapeutic diets
  - Lack of proper food because of poverty
  - Emotional disturbances
- Inadequate use of ingested food caused by
  - Faulty absorption in the digestive tract due to poor dietary practices

    EXAMPLE: Due to an excessive use of mineral oil, a person may absorb fat-soluble vitamins poorly.
  - Faulty absorption in the digestive tract due to gastrointestinal diseases

    EXAMPLE: Crohn's disease (regional enteritis) produces changes in the structures which absorb the nutrients from the small intestines, leading to malabsorption of nutrients. Diarrhea associated with Crohn's disease also prevents absorption of nutrients. When a person has diarrhea, nutrients are rapidly moved through the gastrointestinal tract and absorption time is diminished.

- Food allergies and intolerance — common foods that can cause allergic symptoms, including diarrhea, are nuts, peanuts, eggs, cow's milk, wheat, fish, chicken, and chocolate. Some adults have an intolerance to milk because they are deficient in an enzyme that is necessary for the digestion of *lactose* (milk sugar)

- Metabolic disturbances

  EXAMPLE: In diabetes mellitus, a simple sugar, glucose, is absorbed properly from the gastrointestinal tract into the bloodstream. However, the body cells cannot use the glucose to produce energy because a lack of the hormone insulin prevents the transport of the glucose into body cells.

- Reduced manufacture of vitamins in the intestinal tract following oral antibiotic therapy — some vitamin K is manufactured by bacteria in the intestinal tract

OBJECTIVE 4

Select the disorders and assessment data associated with carbohydrate deficiencies.

Optional Activities/ Resources in Instructor's Guide

WORDS YOU SHOULD KNOW	
hypoglycemia	lowered blood glucose (sugar)

- Loss of weight and muscle wasting
- Lack of glucose for use by the body cells, which causes fatigue and weakness
- Presence of strong acids called ketones in the blood and urine
- Mental and emotional changes due to a lack of glucose to supply the central nervous system

OBJECTIVE 5

Select the disorders and assessment data associated with protein deficiencies.

Optional Activities/ Resources in Instructor's Guide

WORDS YOU SHOULD KNOW	
anemia	deficiency in the number and/or characteristics of red blood cells

- Weakness
- Weight loss and muscle wasting
- Lowered resistance to infection
- Retarded wound healing
- Growth failure
- Anemia
- Edema in the tissues

☛ **NOTE:** In protein deficiency there is a reduced level of the protein albumin in the bloodstream. Albumin holds water in the bloodstream and if the blood level of this substance is decreased, fluid escapes from the blood into the tissues.

OBJECTIVE 6

Choose the word or phrase to complete statements about the disorders and assessment data associated with deficiencies of selected vitamins.

Optional Activities/ Resources in Instructor's Guide

WORDS YOU SHOULD KNOW	
dementia	mental deterioration, that is primarily due to a physical ailment
dermatitis	an inflammation of the skin
glossitis	an inflammation of the tongue
hemorrhagic disease of the newborn	excessive bleeding in the newborn that is corrected by the administration of vitamin K
osteomalacia	a condition characterized by a softening of the bones in the adult resulting in deformity, weakness, and pain
rickets	a childhood disease characterized by softening of the bones resulting in bowed legs and other skeletal abnormalities
tetany	a disorder caused by low blood calcium levels and characterized by muscle tremors and spasmodic muscle contractions

- Vitamin A
  - Night blindness
  - Shrinking and hardening of skin and mucous membranes
- Vitamin D
  - Rickets (in children)
  - Osteomalacia (in adults)
  - Tetany (because of poor calcium absorption)
- Vitamin K
  - Bruising
  - Abnormal blood clotting
  - Hemorrhagic disease in the newborn
- Vitamin B_1 (Thiamine)

  ☞ **NOTE:** A thiamine deficiency is called *beriberi*. It occurs most frequently in alcoholics and persons with kidney diseases.
  - Fatigue
  - Weight loss
  - Muscle cramps and nerve pains
  - Irritability
  - Possible paralysis of the legs
  - Cardiac failure
- Vitamin B_2 (Riboflavin)
  - Cracking and sores at the corners of the mouth
  - Eye sensitivity and visual defects

- Vitamin B_6 (Pyridoxine)

  ☛ **NOTE:** Individuals taking the medication isoniazid (INH) as a treatment for tuberculosis may become deficient in vitamin B_6.

  - Anemia
  - Irritability and confusion
  - Convulsions

- Vitamin B_{12} (Cyanocobalamin)

  ☛ **NOTE:** Pernicious anemia is the deficiency disease associated with vitamin B_{12}. Pernicious anemia is due to the underproduction of the intrinsic factor in the stomach. Intrinsic factor is necessary for the absorption of vitamin B_{12}. Elderly people often lose the ability to produce the intrinsic factor.

  - Anemia
  - Glossitis
  - Weak, numb, and tingling extremities due to nerve damage

- Folic acid

  - Anemia
  - Glossitis

- Niacin

  ☛ **NOTE:** Pellagra is the deficiency disease associated with niacin. It is not commonly seen in the United States. In the past, it has been called the "3-D disease" because of the disorders and symptoms mentioned below which begin with the letter "d."

  - Diarrhea
  - Dermatitis
  - Dementia

- Vitamin C

  ☛ **NOTE:** The deficiency disease associated with a lack of vitamin C is scurvy.

  - Sore and bleeding gums
  - Stiff, aching joints
  - Tendency to bruise easily
  - Susceptibility to infection

OBJECTIVE 7

Choose the word or phrase to complete statements about the disorders and assessment data associated with deficiencies of selected minerals.

Optional Activities/ Resources in Instructor's Guide

WORDS YOU SHOULD KNOW	
goiter	an enlargement of the thyroid gland
hypokalemia	a lowered blood potassium level
hyponatremia	a lowered blood sodium level

- Calcium
  - Rickets in children
  - Osteomalacia in adults
  - Malformed or decaying teeth
  - Slow clotting of the blood
  - Tetany
  - Disturbances in the rate and rhythm of the heart
- Iodine
  - Goiter
  - Decrease in the production of thyroid hormones

- Iron
  - Iron deficiency anemia
  - Lack of red blood cells in the circulating blood
- Potassium (hypokalemia)

  ☑ **NOTE:** A common cause of potassium deficiency is the use of diuretics, a class of drugs that increase the secretion of urine.
  - Disturbances in the cardiac rate and rhythm
  - Muscle weaknesses
  - Abdominal distention due to paralyzed muscles in the digestive tract
  - Dizziness
  - Mental confusion
- Sodium (hyponatremia)
  - Weakness
  - Nerve disorders
  - Loss of weight due to water loss
  - Muscle cramps

OBJECTIVE 8

Optional Activities/ Resources in Instructor's Guide

State three types of food poisoning and give an example of each type.

WORDS YOU SHOULD KNOW	
botulism	a disease of the nervous system caused by the toxins of certain bacteria that grow in spoiled foods

- Poisons found in foods in their natural state

  EXAMPLE: Poisonous mushrooms

- Chemicals added to foods

  EXAMPLES: Insecticides used to spray growing fruits and vegetables, or to spray homes

- Disease-producing organisms or their toxins in foods

  EXAMPLES: Type A hepatitis virus in contaminated drinking water or food; the toxins (or poisons) produced by the bacteria that causes botulism in improperly canned foods.

OBJECTIVE 9

Optional Activities/ Resources in Instructor's Guide

Identify nursing actions that can prevent the transmission of disease-producing organisms or their toxins in foods.

WORDS YOU SHOULD KNOW	
fecal	pertaining to the waste products discharged from the intestines
trichinosis	a disease caused by the ingestion of parasitic worms into the gastrointestinal system

- Sanitation
  - Wash your hands before and after feeding each patient, including infants — bacterial and viral food poisonings can be transmitted from patient to patient.
  - Use gloves when handling fecal material and wash your hands thoroughly after removing the gloves — the hepatitis A virus, salmonella, pinworms, and staphylococcal bacterial infections can be transmitted through contaminated bowel movements.
  - Properly clean your hands after using toilet facilities — the hepatitis A virus can be transmitted to food by hands that are soiled with contaminated fecal material.
  - Promptly report evidence of houseflies or rats in patient-care and food-preparation areas — the bacterium that causes salmonella food poisoning can be transmitted by rat fecal material and houseflies.

- Avoidance of direct patient care when ill
  - Avoid direct patient care and handling of food when you have an infectious illness. Staphylococcal bacterial food poisoning can be caused by transmission from the skin and respiratory tract of infected food handlers; the hepatitis A virus can be transmitted by an infected nurse.
- Prevention of food poisoning
  - Promptly refrigerate all open or freshly mixed infant formulas, commercial or blenderized tube feedings, and liquid nutritional supplements—staphylococcal bacteria can multiply rapidly in this type of food.
  - Do not allow liquids of the above-mentioned type to sit unrefrigerated in a patient's room.
  - Do not allow meat, bakery products, or milk to sit unrefrigerated in a patient's room after meal trays have been collected—staphylococcal bacteria can multiply rapidly in unrefrigerated foods of this type.
  - Do not serve eggs, poultry, pork, or beef that does not appear to be well-cooked — salmonella bacteria can be transmitted by raw eggs or by improperly cooked poultry, pork, or beef. Tapeworms and worms causing trichinosis can be transmitted through undercooked pork and other meats.
  - Take precautions not to serve contaminated canned goods to patients. You should follow these rules for canned goods:
    - Never serve foods from a glass container or a can if the lid or ends are bulging.
    - If the food is forcefully expelled when the container is opened, do not taste or serve the food.
    - If, after opening a can, its contents look or smell bad, do not taste or serve the food.
    - Do not allow visitors or families to feed patients from suspect home-canned foods. The bacterium *clostridium botulinum*, which is often found in improperly canned foods, produces a powerful toxin which can cause botulism. Botulism can lead to respiratory paralysis and death.

OBJECTIVE 10

Optional Activities/ Resources in Instructor's Guide

Discuss nursing interventions used to increase a patient's intake of food.

- For patients in general
  - Make provisions for the patient to void and/or defecate prior to the meal.
  - Wash the patient's hands and provide for mouth care before the meal is served.
  - Help the patient sit up in a chair if possible; if the patient needs to remain in bed, elevate the patient to a sitting position and position a bed table for the patient's convenience.
  - During mealtimes, provide an environment that is as free as possible of unpleasant sights and odors.
  - Avoid unnecessary interruptions, such as giving treatments or medications during meal time.
  - Consult the physician about any needed diet changes.
  - Help the patient as needed with cutting food, buttering bread, and pouring beverages. Allow the patient to do as much as possible. Feed the patient only if necessary.
  - Place the food and communication device so they are easily reached.
  - Allow the patient ample time to eat.
  - If the patient does not eat, try to find out why.
  - If the patient has a poor appetite, serve small, frequent meals.
  - Don't insist that a patient eat.
  - Prevent constipation.
- For the patient who will not eat due to persistent nausea
  - Feed the patient small, frequent meals.
  - Have the patient chew thoroughly and slowly.

- Administer prescribed antiemetics (drugs that combat nausea and vomiting) thirty minutes to one hour before the meals are served.
- Advise the patient to avoid drinking liquids at mealtimes.
- Try serving the cold or room-temperature foods.
- If allowed by the physician, advise the patient to try dry, salty foods, such as crackers, to relieve the nausea.
- Advise the patient to avoid hot, spicy, strong smelling, or fatty foods.

- For the patient with a dry mouth
  - If approved by the physician, place a humidifier in the patient's room.
  - Provide the patient with artificial saliva.
  - Encourage the patient to drink 8 to 12 cups of liquids daily. Do not encourage liquids if the patient is on fluid restriction.
  - Advise the patient to avoid "dry" foods such as toast, crackers, etc. The patient should moisten foods in liquids.
  - Provide the patient with sweet or tart foods and liquids, if the diet permits. This measure may help to increase the flow of saliva.

- For the patient who complains of soreness of the mouth and throat
  - Advise the patient to avoid all substances that will irritate the mucous membranes of the mouth and throat. These substances include tobacco, alcohol, and foods that are spicy, acidic, rough, dry, or coarse.
  - Encourage the patient to drink plenty of liquids (if patient's condition permits this).
  - Provide the patient with cold foods such as chilled custard and milkshakes (if the prescribed diet permits).
  - Obtain an anesthetic spray for the patient's use (if the physician approves).

- For the patient who complains of feeling bloated or full shortly after beginning a meal
  - Advise the patient to chew slowly and to take short breaks during the meal.
  - Do not serve the patient greasy, fried, or rich foods.
  - Ask the patient to avoid drinking liquids during meals.
  - Between meals, serve the patient liquids of high nutritive value such as milk and vegetable juices.
  - Advise the patient to avoid activities that cause air collection in the intestinal tract. These activities include chewing gum, smoking cigarettes, and drinking through a straw.
  - Give the patient a list of foods which are known intestinal gas formers. These foods include cooked dried beans, onions, cabbage, cauliflower, and nuts.
- For the patient who complains that food has a strange taste
  - Advise the patient to drink liquids and to use sugar-free hard candies to take away strange tastes.
  - Encourage the patient to eat chicken, turkey, fish, cheese, or eggs if the patient complains that red meat does not taste right (if the patient's diet permits this).
  - Encourage the patient to eat cold foods.
  - Tell the patient that tart foods may make the flavors of other foods acceptable when used as seasoning. Lemon juice and vinegar are two examples of tart foods that can be used for this purpose.
- For the patient who complains of heartburn after eating
  - *If the physician allows*, advise the patient to try bland, low-fat foods.

    ☛ **NOTE:** Check the diet ordered by the physician before proceeding with this measure.
  - Tell the patient not to lie down for 2 hours after eating.
  - If approved by the physician, give the patient chilled antacids 1 hour and 3 hours after meals.

- For the patient who has an exaggerated or hyperactive gag reflex
  - Do not serve the patient "lumpy" foods.
  - Give the patient foods which are smooth and soft in consistency.
- For the patient who has a disability
  - Encourage the patient to feed independently as much as possible.
  - Obtain and use special adaptive feeding equipment and techniques.
  - Consult the dietician, physical therapist, or occupational therapist for ways to increase feeding independence.

OBJECTIVE 11

Discuss nursing interventions for feeding problems caused by a disability.

Required Activities/ Resources
– Handout

Read Handout 1, "Adaptive Equipment."

- If the patient suffers from poor coordination
  - Anchor feeding equipment with nonslip mats or suction cups.
  - Serve finger foods and foods that stick together.
- If the patient has poor hand grasp
  - Use tape or foam rubber to make the handles on eating utensils larger.
- If the patient has lost upper extremity strength
  - Raise the height of the feeding table as close as possible to the patient's mouth.
  - Use lightweight feeding equipment.
- If the patient is blind
  - The "clock" method is used for certain blind people. In order to give a blind patient some idea as to where utensils and foods are located on a meal tray, the patient is instructed to visualize a clock face on the tray. The patient is told something similar to the following: "Your meat is at 6 o'clock. The vegetables are at 5 o'clock. Dessert is located at 12 o'clock..."

OBJECTIVE 12

Optional Activities/ Resources in Instructor's Guide

Choose the word or phrase to complete statements about the characteristics of selected therapeutic diets.

WORDS YOU SHOULD KNOW	
dysphagia	difficulty in swallowing
therapeutic diet	nourishments prescribed by a physician for the treatment of a disease or the lessening of symptoms of a disease

☑ **NOTE:** The following pages give details on therapeutic diets that the practical nurse will see ordered for patients on a routine basis. There are many other diets that the health care practitioner will encounter less frequently. The *Oklahoma Diet Manual* and similar books should be used as reference sources for these diets.

- Therapeutic diet types
  - Regular diet
  - Clear liquid
  - Full liquid
  - Pureed
  - Edentulous (mechanical soft diet)
  - T and A (tonsillectomy diet)

Diet	Rationale for diet	Disorders for which diet is ordered	Foods permitted	Foods omitted or limited	Nutritional adequacy
Regular diet (house diet, general diet)	Ordered for any patient who does not require a diet modification or a therapeutic diet	Not applicable	Most foods	Some institutions omit highly spiced, flavored or seasoned foods; gas-forming foods; and greasy foods.	Nutritionally adequate for long-term use.
Clear liquid (also called surgical liquid)	Used when it is necessary to reduce the amount of fecal material in the colon—before colon surgeries or x-rays; helps prevent dehydration	Before or after abdominal surgery; acute inflammatory conditions of gastrointestinal tract (digestive system); before x-rays of the colon (large bowel)	• Fluids that can be seen through when held to the light: apple juice, cranberry juice, clear beef, chicken, or vegetable broth, coffee, tea, carbonated beverages • Solids that become liquid at body temperature: chilled flavored gelatin, popsicles	All solids except some foods that become liquid at body temperature	Composed mainly of water and carbohydrates; nutritionally inadequate for long-term use
Full liquid	Used when conditions require easily swallowed and digested foods	Before and after abdominal surgery; chewing and swallowing problems; gastrointestinal problems	Eggnog, milk, cocoa, custards, puddings, ice cream, all clear liquids, refined cooked cereals, strained soups, all fruit juices, liquid dietary supplements	Most solids, except some foods that become liquid at body temperature	Nutritionally inadequate for long-term use. Deficient in iron and fiber; iron supplement must be given if used on long-term basis
Pureed	Modified in consistency so that the food does not have to be chewed and is more easily swallowed	Fractured jaws which have been wired; dysphagia due to strokes, head and neck cancer, etc.	All that can be cooked, finely chopped, and run through a sieve; all liquids	None	Is nutritionally adequate for long-term use ☞ **NOTE:** This diet is distressing to some persons because it resembles "baby food."

Diet	Rationale for diet	Disorders for which diet is ordered	Foods permitted	Foods omitted or limited	Nutritional adequacy
Edentulous (mechanical soft diet)		Ill-fitting dentures; inability to wear dentures	Any food which can be easily chewed without teeth or dentures; foods which have been ground, blended, chopped, etc.	Nuts, most uncooked fruits and vegetables, tough meats, other foods not easily chewed	Nutritionally adequate for long-term use with careful planning
T and A (tonsillectomy diet)	Designed to be chemically, mechanically, and thermally non-irritating to the throat	Tonsillectomy and/or adenoidectomy (removal of the tonsils and or adenoids)	Ice chips; water; bland fruit juices—apple, apricot, pear, peach; carbonated beverages; popsicles; gelatin; vanilla ice cream; iced tea	Citrus juices; lemons, warm or hot beverages. Some physicians do not allow milk or foods containing milk **Drinking straws are not allowed.** It is best not to serve red liquids which, if vomited, might be mistaken for fresh bleeding from the operative site.	Nutritionally inadequate for long-term use

ASSIGNMENT SHEET 1

APPLYING PRINCIPLES OF DIET THERAPY

2

Name _____ Score _____

OBJECTIVE 13

Use the nursing process to improve a patient's dietary intake.

INTRODUCTION

The nursing process is a five-step logical approach to administering nursing care. Using the nursing process helps to assure quality care for the patient. Before completing this assignment sheet, review the steps of the nursing process from *Nursing Principles and Skills.*

INSTRUCTIONS

Reading Comprehension
- Gain factual information

Functional Reading
- Interpret forms and records
- Use content area vocabulary

Language
- Use standard grammar, spelling, and capitalization
- State ideas clearly

Operation and Calculation
- Calculate with whole numbers

Math Application
- Solve word problems

Select a patient who is not eating and/or drinking an appropriate amount. Make certain it is a patient who will remain in your institution long enough to benefit from the five-step process. Answer each question asked below if possible and take the appropriate actions as directed.

I. **Assessment**

A. Patient interview — ask the patient and/or friends and family the following questions:

1. What did the patient have to eat and drink yesterday? (Be specific if possible.)

   Breakfast:

   Lunch:

Life Science
- Investigate health issues

Listening
- Apply active listening skills

Interactive Communications
- Apply questioning techniques
- Conduct/receive interviews
- Communicate with clients/customers/ patients

General Relating
- Interact with clients/customers/ patients

Cognitive Activities
- Collect/record information
- Identify critical elements/issues
- Define a problem
- Identify underlying causes
- Analyze/synthesize information
- Draw conclusions
- Evaluate alternatives
- Create a finished product
- Evaluate results/outcomes

Dinner:

Between meals:

2. How does the patient compare the amount of food or drinks consumed, more or less than yesterday?

_____

3. Does the patient think that he/she needs to eat more?

_____

4. Does the patient think that he/she needs to drink more?

_____

5. What does the patient say is keeping him/her from eating and/or drinking enough?

_____

6. What does the patient think will help him/her to eat and/or drink more?

_____

7. Does the patient have any food allergies?

_____

8. Are there any foods the patient dislikes?

_____

Job Acquisition/
Development
• Master specific job
task/procedure

B. Review of patient's records

1. What is the amount of breakfast the patient has eaten over the past few days? (80%, ½, etc.)

   EXAMPLE: May 1 — 20%, May 2 — 10%

   _____

2. What is the amount of lunch the patient has eaten over the past few days?

   _____

3. What is the amount of dinner the patient has eaten over the past few days?

   _____

4. Has the patient eaten any in-between meal snacks over the past few days?

   _____

5. What was the patient's daily (twenty-four hour) oral fluid intake for the past few days?

   EXAMPLE: May 1 — 600 cc's, May 2 — 720 cc's

   _____

6. Is the patient on fluid restrictions? (Some patients are strictly limited as to the amount of fluids they are allowed on a daily basis. Do not increase the fluid intake of these patients.) If yes, how many cc's is the patient allowed daily?

   _____

7. Has the physician ordered the patient to receive a therapeutic diet? If so, what is the diet? (bland, low fat, etc.)

   _____

8. What are the patient's primary and secondary medical diagnoses?

   _____

9. Does the physician mention any nutritional problems in the progress notes and/or medical history of the patient? What are the problems mentioned?

_____

C. Physical examination

1. Does the patient have any obvious physical disabilities that would interfere with the ability to eat unassisted? What physical disabilities are present?

_____

2. Does the patient display any physical symptoms that might affect intake of food and/or fluids? What are these symptoms?

   EXAMPLE: Extreme shortness of breath, abdominal pain

_____

3. What is the patient's height?

_____

4. What is the patient's weight?

_____

5. Is the patient underweight or overweight?

_____

☞ **NOTE:** A rough estimate of a patient's ideal weight can be obtained by following these general rules: (1) a five foot woman should weigh 100 pounds. For each inch of height above five feet, she is allowed to weigh five more pounds. A 5'9" woman would ideally weigh around 145 pounds. (2) A five foot man should ideally weigh 110 pounds. For each inch of height above five feet, he is allowed to weigh five more pounds. A 5'10" man should weigh approximately 160 pounds. Use these general rules to determine if your patient is under- or over-weight.

II. **Analysis**

A. Compare the data obtained from your patient to normal information presented in your textbook.

_____

_____

_____

B. Identify any data that is abnormal (weight loss, anorexia, etc.).

_____

_____

_____

C. Identify any patterns of dysfunction (dysphagia, nausea, etc.).

_____

_____

_____

D. Identify the patient's strengths and weaknesses associated with nutrition.

_____

_____

_____

E. Formulate nursing diagnosis associated with nutritional deficit or needs.

_____

_____

_____

III. **Planning**

A. Review the plan of care. Does it meet the nutritional needs of your patient?

B. Does this patient need nursing intervention in order to increase intake? (See Assessment A. 1 through 4, B. 1 through 6 and 9, and C. 3 through 5)

C. What is/are the major reason(s) for this patient's poor intake? (See Assessment A. 5, B. 8, and C. 1 and 2)

D. What nursing interventions might help to increase this patient's intake? (See Assessment A. 6)

E. Does the patient agree that these interventions might help increase inadequate intake? If not, what suggestions did the patient make that will help?

F. What is the expected outcome of the nursing interventions?

EXAMPLES: The patient will increase caloric intake by 800 calories a day. The patient will drink at least 2000 cc's daily. The patient will gain one pound per week. The patient will eat at least 65% of each meal.

_____

_____

_____

G. Do any of the nursing actions you have planned conflict with any of the physician's orders?

_____

_____

_____

H. Does the dietician or physical therapist need to be consulted? (These experts can offer many specific and helpful ideas.)

_____

_____

_____

I. If so, what suggestions were offered?

_____

_____

_____

J. What nursing interventions do you think might help to increase the patient's intake? (See Objectives 11 and 12 in this unit for some suggestions.)

_____

_____

_____

K. Do any of these nursing interventions conflict with the patient's stated food allergies and food dislikes? (See Assessment A. 7 and 8.)

If so, how will you change the nursing interventions?

_____

_____

_____

L. Do any of the nursing interventions you have planned conflict with any of the physician's orders? (See Assessment B. 6 and 7.)

If so, how will you change the nursing interventions?

_____

_____

_____

If necessary, have you consulted with the physician about a dietary order?

_____

If you consulted with the physician, what was the response?

_____

_____

_____

M. Does your nursing instructor approve of your plans?

☛ **NOTE:** Have a conference with your nursing instructor to review your assessment and planning steps before proceeding with this assignment.

_____

_____

_____

N. Have the nursing staff been properly notified of the nursing interventions which are needed for this patient?

O. Have you included the proposed interventions on the nursing care plan?

IV. **Implementation**

A. Implement plan of care.

B. What nursing interventions were taken in order to help the patient with intake problems?

V. **Evaluation**

A. Did the nursing interventions produce the expected outcome within an appropriate amount of time?

B. If expected outcomes were not met, what further actions may need to be taken?

EXAMPLES: The patient will need to be reassessed and possibly new nursing interventions planned. The nursing interventions need to be carried out with more consistency.

ASSIGNMENT SHEET 2	APPLYING PRINCIPLES OF DIET THERAPY	2

Name _____ Score _____

OBJECTIVE 14

Teach a patient about a therapeutic diet.

INTRODUCTION

Many reference sources are available to assist nurses in teaching patients about their therapeutic diets. An excellent reference source is the *Oklahoma Diet Manual*, which is published by the Oklahoma Dietetic Association. Use this reference or a similar one to teach a patient about a therapeutic diet.

INSTRUCTIONS

Reading Comprehension
- Gain factual information

Research and Reference
- Select useful resources

Functional Reading
- Interpret forms and records
- Follow written instructions
- Use content area vocabulary

Language
- Use standard grammar, spelling, and capitalization
- State ideas clearly

Life Science
- Investigate health issues

To complete this assignment, you or your instructor should select a patient who is to remain on a therapeutic diet when returning to the home environment. As a student, you should choose a patient on one of the following therapeutic diets: low fiber, high fiber, fat restricted (low fat, gallbladder), diet as tolerated (bland), tonsillectomy, or four gram sodium (mild sodium restriction). Other diets are complex and may not be appropriate for student teaching. Answer the questions listed below, and use this assignment sheet as a guide to instruct your patient about the diet. Have your instructor approve your answers before proceeding with your patient teaching.

☞ **NOTE:** Some institutions prefer that dieticians provide the majority of patient nutritional instruction. Be sure to inquire about your training institution's policy regarding dietary instruction before teaching the patient.

Provide the following assessment data about your patient. The questions marked with an asterisk will be used to complete your patient teaching session.

1. Initial of the patient: _____
2. Age of the patient: _____
3. Diagnosis/diagnoses of the patient: _____

Oral Presentation
- Make informative presentations
- Make persuasive presentations
- Adapt presentation to specific audience

Listening
- Apply active listening skills
- Draw conclusions/make generalizations

Interactive Communications
- Give/follow oral directions
- Apply questioning techniques
- Conduct/receive interviews
- Communicate with clients/customers/ patients

Cognitive Activities
- Collect/record information
- Analyze/synthesize information
- Create a finished product

Job Acquisition/ Development
- Master specific job task/procedure

•4. Type of therapeutic diet the patient will be required to follow:

_____

_____

•5. How long will the patient have to remain on this type of diet? (one day, one year, indefinitely)

_____

_____

•6. Why is it necessary that the patient follow this diet plan?

_____

_____

EXAMPLES: 1) "This patient has an inflammation of the colon. This diet will lessen the irritation and stimulation of the large bowel."

2) "This patient has hypertension. This diet will promote the loss of excess body fluid from the vascular system. This will help to lower the patient's blood pressure."

☞ **NOTE:** In the *Oklahoma Diet Manual*, the answer to the type of question asked above is partially covered in the "Treatment and Rationale" section that accompanies the discussion of each therapeutic diet.

•7. What types of foods are allowed on this diet?

_____

_____

☞ **NOTE:** In the *Oklahoma Diet Manual*, the answers to the question above are found in the patient handout section which accompanies the discussion of each therapeutic diet.

*8. What foods must the patient avoid while following this diet?

_____

_____

☛ **NOTE:** In the *Oklahoma Diet Manual*, the answers to the question above are found in the patient handout section which accompanies the discussion of each therapeutic diet.

*9. The patient must always learn what foods to include and what foods to avoid on a therapeutic diet. You may also need to convey other specific information to the patient regarding the diet. Is there any other information you need to include as you instruct the patient about the diet modification?

_____

_____

EXAMPLE: 1) "A salt substitute may be used only if the physician approves."

2) "Any foods that cause discomfort should be eliminated from the diet."

☛ **NOTE:** In the *Oklahoma Diet Manual*, the answer(s) to the question above are located in the patient handout section that accompanies the discussion of each therapeutic diet. The portion of the patient handout section entitled "Helpful Hints" will contain many of the special patient instructions.

*10. The patient should receive printed handouts about therapeutic diet. What type of printed material do you intend to give the patient? Show this printed material to your instructor.

EXAMPLE ANSWERS: 1) "I intend to give the patient printed material which I obtained from the dietician at Heavenly Hospital."

2) "I intend to give the patient material which was copied from the diet manual that is kept at the nurses' desk."

☛ **NOTE:** The *Oklahoma Diet Manual* contains patient handout sections which can easily be copied for distribution to patients.

Instructions for teaching

Follow the steps below.

1. Complete questions 1 through 10 above.

2. Have your instructor approve your written work before proceeding with your patient teaching.

3. Interview the patient before beginning your teaching session. Determine what the patient already knows about the therapeutic diet. It is not necessary to spend time teaching the patient something he already knows.

4. Use those questions above which are marked with asterisks (*) as an instructional guide. This is the type of information that needs to be taught to the patient.

JOB SHEET 1	APPLYING PRINCIPLES OF DIET THERAPY	2

Name _____

OBJECTIVE 15

Feed a sighted or blind patient.

INTRODUCTION

Think how frustrating it would be not to be able to feed yourself. It would be even more frustrating to have someone feed you who had not mastered the skills involved. It may seem like a simple process, but to feed someone else takes patience and skills. Practice with a classmate in feeding each other and put yourself in the patient's place.

EQUIPMENT AND SUPPLIES

- Patient's tray
- Overbed table or suitable sturdy table
- Napkin or bib
- Equipment for oral hygiene
  - Emesis basin
  - Mouthwash
  - Toothpaste
  - Toothbrush
- Washcloth and towel

PROCEDURE

Reading Comprehension
- Gain factual information

Functional Reading
- Interpret forms and records
- Follow written instructions

Assessment and Analysis	Yes	No
1. Identify type of diet ordered.	____	____
2. Check to see if there is any reason why the patient's meal should be delayed or omitted.	____	____
3. Check on the patient's previous need for assistance.	____	____
4. Note any nursing diagnoses related to eating or feeding.	____	____

Planning

☑ **NOTE:** When planning care, take into account the time food trays arrive on the unit.

Language
- Use standard grammar, spelling, and capitalization
- State ideas clearly

Functional Writing
- Complete forms and records

Interactive Communications
- Communicate with clients/customers/patients

Cognitive Activities
- Collect/record information

Job Acquisition/ Development
- Master specific job task/procedure
- Practice good work habits/attitudes

	Yes	No
5. Plan time for feeding.	____	____
6. Set a tentative goal for amount the patient should eat.	____	____
7. Wash your hands.	____	____

Implementation

8. Identify the patient.	____	____
9. Greet the patient and explain the procedure.	____	____
10. Offer to assist the patient to the bathroom or to use the bedpan or urinal.	____	____
11. Wash your hands.	____	____
12. Help the patient wash and dry hands and face.	____	____
13. Offer oral hygiene.	____	____

☑ **NOTE:** Some patients will not eat because they have a bad taste in their mouths.

14. Prepare patient's room by removing clutter on top of table and surrounding areas.	____	____
15. Discard any articles that may be unpleasant.	____	____
16. Wash your hands.	____	____
17. Position the patient comfortably in an upright position.	____	____
18. Provide eyeglasses or dentures, if worn.	____	____
19. Protect bed linen.	____	____
20. Obtain any special utensils needed.	____	____

	Yes	No
21. Check the name on the tray with that of patient. Tray will have a card or identification slip attached that lists the patient's name, room number, and the type of diet. Be sure you have the right tray. Check for signs that the patient may be scheduled for surgery or tests that would not permit food intake.	____	____
22. Wash your hands.	____	____
23. Set the tray in front of the patient and uncover the contents, lifting the side of the cover away from the patient first to prevent steam or aroma from being directed to the patient.	____	____
☑ **NOTE:** A patient who is ill may be overcome by an immediate, strong aroma from the tray.		
24. Arrange everything on the tray for easy access and decide if the patient is able to eat any portion of the meal unassisted.	____	____
☑ **NOTE:** Some patients who cannot handle a fork or spoon may be able to hold their own drinking glass. Blind patients may sometimes help themselves if the food is set up as a clock would be, with instructions from the nurse on how things are arranged on the plate, such as meat at 8:00, potatoes at 3:00, and green beans at 12:00.		
25. Sit down in a comfortable position, at patient's eye level, if possible, to feed the patient.	____	____
☑ **NOTE:** The patient will be more relaxed and feel less hurried if the nurse is sitting down.		
26. Describe the food to the patient who is unable to see.	____	____
27. Cut bulky and tough foods into bite-size pieces.	____	____

	Yes	No
28. Fill the fork or spoon only half full; this helps to avoid spilling the food.	____	____
29. Feed slowly, alternating foods and liquids.	____	____
☛ **NOTE:** Warn the blind patient each time a feeding utensil approaches the mouth.	____	____
30. Allow time between bites; stop occasionally to allow the patient to rest.	____	____
31. Give liquids through a straw if the patient's condition permits this.	____	____
☛ **NOTE:** When giving hot liquids, the patient should be warned to take only small sips until liquids cool to avoid being burned.		
32. Allow patient to hold bread or any feeding utensil, if possible.	____	____
33. Encourage the patient to take as much of the diet as possible, but do no cause distress by an overly vigorous emphasis on nutrient consumption.	____	____
34. Clean the table after the patient has finished.	____	____
35. Help patient wash hands and brush teeth, if desired.	____	____
36. Reposition the patient and make the patient comfortable.	____	____
37. Wash your hands.	____	____
Evaluation		
38. Evaluate using the following criteria:		
a. Patient is satisfied and comfortable.	____	____
b. Amount taken was observed and measured or recorded, if necessary.	____	____
c. New information needed for the nursing care plan.	____	____

SKILL TEST RECORD

EVALUATOR'S COMMENTS

_____

_____

_____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Key below.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:

	4	3	2	1
	4	3	2	1
	4	3	2	1
	4	3	2	1
	4	3	2	1

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the points in Product Evaluation and divide by the total number of criteria. Circle the rating on the Key.

KEY

4 **Skilled** – Can perform job with no additional training.
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required.
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill.
1 **Unskilled** – Is familiar with process, but is unable to perform job.

EVALUATOR'S COMMENTS

JOB SHEET 2	*APPLYING PRINCIPLES OF DIET THERAPY*	**2**

Name _____

OBJECTIVE 16

Feed a patient with dysphagia.

INTRODUCTION

Any student who feeds a patient with dysphagia should know how to perform pharyngeal (throat) and tracheal suctioning procedures. Students should also be aware of the techniques used to dislodge an airway obstruction. Aspiration of liquids or solid foods into the respiratory tract is possible if the patient has difficulty in swallowing or has paralysis of the muscles used in swallowing.

EQUIPMENT AND SUPPLIES

- Patient's tray
- Overbed table or suitable sturdy table
- Napkin or bib
- Equipment for oral hygiene
  - Emesis basin
  - Mouthwash
  - Toothpaste
  - Toothbrush
  - Oral swabs
- Washcloth and towel
- Large 60 cc syringe with irrigating tip, if necessary
- Equipment needed for suctioning the upper respiratory airways
  - Suction catheter
  - Connecting tubing
  - Constant suction source
  - Gloves
  - Water

PROCEDURE

Reading Comprehension
• Gain factual information

Assessment and Analysis	Yes	No
1. Identify the patient.	____	____
2. Check on the patient's need for assistance	____	____

Functional Reading
- Interpret forms and records
- Follow written instructions

Language
- Use standard grammar, spelling, and capitalization
- State ideas clearly

Functional Writing
- Complete forms and records

Interactive Communications
- Analyze/apply non-verbal communication
- Communicate with clients/customers/ patients

Cognitive Activities
- Collect/record information

Job Acquisition/ Development
- Master specific job task/procedure
- Practice good work habits/attitudes

	Yes	No
3. Ask if the patient has tongue, throat, or mouth paralysis on one side.	____	____
☑ **NOTE:** Many patients with strokes have throat, tongue, or mouth paralysis on one side of the body. The nurse should ask charge personnel if the patient has this problem. The nurse also needs to determine which side is affected.		
4. Note any nursing diagnoses related to eating or feeding.	____	____
Planning		
☑ **NOTE:** When planning care, allow time to test suctioning equipment to make certain it is functioning properly.		
5. If a syringe is being used to feed the patient, check the feeding syringe for cleanliness. Wash the syringe, if necessary.	____	____
6. Arrange for adequate time to complete the procedure in an appropriate manner. Do not hurry the patient.	____	____
Implementation		
7. Tell the patient what you are going to do.	____	____
8. Offer to assist the patient to the bathroom or to use the bedpan or urinal.	____	____
9. Wash hands after assisting patient to use bedpan or urinal.	____	____
10. Assist the patient in washing and drying face and hands.	____	____
11. Offer oral hygiene.	____	____
12. Prepare the patient's room by removing clutter on top of the table and surrounding areas.	____	____
13. Discard any articles that may be unpleasant.	____	____

	Yes	No
14. Place the patient in an upright position, if possible.	____	____
☛ **NOTE:** It is especially important that a patient with dysphagia be placed in an upright position, if allowed.		
15. Provide eyeglasses or dentures, if worn.	____	____
16. Protect bed linen.	____	____
17. Wash your hands.	____	____
18. Position the patient on unaffected side and in an upright position if throat, tongue, or mouth paralysis is present.	____	____
19. Position the patient's head so that it is not pushed or tilted back.	____	____
☛ **NOTE:** Tilting the head backwards makes swallowing difficult and creates the possibility of aspiration.		
20. Check the tray and the identity of the patient before serving.	____	____
21. Set the tray in front of the patient after uncovering the contents.	____	____
22. Arrange everything on the tray for easy access and decide if the patient is able to eat any portion of the meal unassisted. Allow the patient to assist, if possible.	____	____
23. Give the patient a test swallow of water before giving other liquids or solid foods.	____	____
☛ **NOTE:** If the patient cannot swallow or if the patient chokes or coughs violently, do not proceed with the feeding until the charge nurse or the patient's doctor has been consulted. Suction any unswallowed water from the patient's throat.		
24. Sit down in a comfortable position if you are to feed the patient.	____	____

	Yes	No
25. Cut any bulky foods into small pieces.	____	____
☑ **NOTE:** Foods that can easily cause choking are best eliminated from the diet.		
26. If the patient has paralysis of the throat, tongue, or mouth, place food or liquids on the unaffected side of the mouth beyond the tip of the tongue. If a syringe is used to feed the patient liquids and semi-solids, place the irrigating tip on the unaffected side also.	____	____
27. Encourage the patient to take small sips or bites and swallow immediately.	____	____
28. If a feeding syringe is used, introduce only 5 cc of liquid into a patient's mouth at a time.	____	____
29. Delay feeding any additional foods or liquids until swallowing is completed.	____	____
30. Stop occasionally to allow the patient to rest.	____	____
31. Encourage the patient to take the diet, but do not cause distress by an overly vigorous emphasis on nutrient consumption.	____	____
32. Clean the table after the patient has finished.	____	____
33. Assist the patient with oral hygiene and check the patient's mouth for any retained food.	____	____
34. Gently remove any retained food from the patient's mouth.	____	____
35. Reposition patient, make patient comfortable.	____	____
36. Wash your hands.	____	____
Evaluation		
37. Evaluate using the following criteria:		
a. Patient is satisfied and comfortable.	____	____
b. Amount taken was observed and measured or recorded.	____	____

	Yes	No
c. Problems encountered were noted.	____	____

Documentation

38. Record the following data:

a. Type and amount of food taken.	____	____
Chart and report the consistency of food that is most easily swallowed by the patient. Many times following a stroke, thick liquids and semi-solids are more easily swallowed than watery liquids.		
b. Patient response.	____	____
c. New information needed for the nursing care plan.	____	____

SKILL TEST RECORD

EVALUATOR'S COMMENTS

_____

_____

_____

PRODUCT EVALUATION

Evaluator note: Rate the student on the following criteria by circling the appropriate numbers. Each criterion must receive a rating of "3" or higher to demonstrate student mastery. (See Key below.) A student who is unable to demonstrate mastery should review the material and submit another product for evaluation.

Criteria:

	4	3	2	1
	4	3	2	1
	4	3	2	1

	4	3	2	1
	4	3	2	1

AVERAGE RATING

Evaluator note: To obtain an average rating for the Competency Profile, total the points in Product Evaluation and divide by the total number of criteria. Circle the rating on the Key.

KEY

4 **Skilled** – Can perform job with no additional training.
3 **Moderately Skilled** – Has performed job during training program; limited additional training may be required.
2 **Limited Skill** – Has performed job during training program; additional training is required to develop skill.
1 **Unskilled** – Is familiar with process, but is unable to perform job.

EVALUATOR'S COMMENTS

NUTRITION

READING SKILLS

UNITS OF INSTRUCTION	Gain factual information	Distinguish fact, opinion and inference	Recognize stereotyping and bias	Recognize propaganda	Analyze cause and effect	Draw conclusions	Make generalizations	React to written material	Apply word analysis techniques	Select useful resources	Locate resources	Find materials in library	Use standard references	Use in-book reference tools	Use audiovisual media	Use computer data base	Use magazines and newspapers	Interpret forms and records	Follow written instructions	Interpret graphics and symbols	Use content area vocabulary	Interpret abbreviations/acronyms	Read aloud	Use standard grammar and correct spelling, punctuation, and capitalization	State ideas clearly	Use complete sentences	Develop preliminary outline	Use topic sentences	Use introductory/closing paragraphs	Compose reports	Compose essays	Proofread and edit	Construct graphics and symbols	Take notes
Applying Principles of Basic Nutrition	●																							●	●									
Applying Principles of Diet Therapy	●									●								●	●		●			●	●									

IC BASIC SKILLS DOCUMENTATION MATRI

TING SKILLS

MATH SKILLS

Research					Functional Writing								Operation and Calculation												Math Application												Data Analysis and Display													
Take notes	Use notecards	Create bibliography	Use footnotes	Outline material	Complete forms and records	Write instructions	Write letters	Write job applications	Write resumes	Use word processing	Use computer graphics	Round off numbers	Estimate answers	Use scientific notations	Use exponential notations	Calculate with whole numbers	Calculate with fractions	Calculate with decimals	Convert whole numbers to fractions	Convert whole numbers to decimals	Solve numerical expressions	Solve formulae and equations	Obtain squares and square roots	Convert units of measure	Perform metric calculations	Solve word problems	Select/apply mathematical formula	Select/apply mathematical procedure	Use English and metric measures	Solve time/rate/distance problems	Solve ratio/proportion problems	Solve percent problems	Apply techniques of scaling	Apply algebra principles	Apply geometry principles	Apply trigonometry principles	Interpret charts and tables	Interpret graphs (type)	Collect /record data	Apply sampling techniques	Apply principles of probability	Construct charts and tables	Construct graphs	Calculate statistics	Interpret statistics	Interpret blueprints/plans	Make measurements	Perform banking transactions
																●										●	●	●									●												
					●											●										●																							

RIX

SCIENCE SKILLS

94-015732

Functional Math													General Science									Life Science									Physical Science									Earth Science								
Make measurements	Perform banking transactions	Make change	Solve practical problems	Calculate gross earnings	Solve income/expense problems	Prepare a budget	Calculate interest	Solve interest problems	Calculate sales tax	Determine income tax	Use calculator for computation	Use computer for computation	Use computer spreadsheets	Apply computing skills	Apply scientific method of inquiry	Conduct experiments	Investigate science ethics	Investigate science history	Investigate/apply economics in technology	Use scientific instruments	Investigate/apply technology	Collect specimens	Identify/classify living organisms	Investigate biological history of the earth	Investigate food chains, webs, pyramids	Investigate/apply principles of human development	Investigate/apply principles of genetics/heredity	Investigate/apply principles of anatomy/physiology	Investigate health issues	Analyze/classify matter	Investigate forms/changes of matter	Investigate forms/changes of energy	Investigate/apply chemical properties	Investigate/apply physical laws	Investigate physical characteristics of the earth	Investigate geological history of the earth	Investigate physical forces acting on the earth	Solve problems of longitude, latitude, and time zones	Investigate conservation of physical resources	Investigate conservation of living resources	Investigate issues of environmental impact	Apply science principles to environmental issues
																													●	●																

ORAL COMMUNICATION SKILLS

UNITS OF INSTRUCTION	Oral Presentation											Listening			Interactive Communication								Group Relations								
	Make informative presentations	Make persuasive presentations	Present personal opinion/viewpoint	Use good speaking techniques	Select/use words effectively	Use effective body language	Present approriate appearance	Integrate audio and/or visual materials in oral presentations	Adapt presentation to specific audience	Apply active listening skills	Distinguish fact, opinion, and inference	Draw conclusions/make generalizations	Analyze/identify point of view	Give/follow oral directions	Apply questioning techniques	Conduct/receive interviews	Analyze/apply nonverbal communication	Work effectively in a group	Communicate with clients/customers/patients	Communicate with co-workers	Communicate with supervisors	Communicate with professional colleagues/ associates	Apply telephone etiquette	Investigate/apply communication process models	Analyze/apply nonverbal communication	Investigate/apply cross cultural communication	Interact with co-workers	Interact with supervisors	Interact with clients/customers/patients	Interact with professionalcolleagues/associates	Interact with family/friends	Participate in group activities	Participate in industrial relations/functions	Identify personal values/attitudes
Applying Principles of Basic Nutrition																																
Applying Principles of Diet Therapy									●	●		●		●	●	●	●		●										●			

INTERPERSONAL OR RELATING SKILLS

Teamwork/Cooperation

- Identify personal values/attitudes
- Apply information to life experiences
- Identify values/attitudes
- Identify needs/drives
- Select/apply appropriate behavior
- Investigate/identify personal styles
- Investigate/identify group/corporate climate
- Give/receive feedback
- Identify hidden purposes
- Investigate/apply group dynamics
- Control undesirable/inappropriate behavior
- Resolve conflicts
- Clarify goals/objectives
- Devise "win/win" situations
- Build consensus
- Generate ideas
- Present point of view

Leadership/Influence

- Analyze/apply leadership styles
- Analyze/apply management styles
- Obtain confidence of others
- Develop esteem in self/others
- Persuade others
- Analyze/apply motivation techniques
- Provide positive coaching

CREATIVE THINKING/PROBLEM SOLVING SKILLS

Cognitive Activities

| | | |

EMPLOYABILITY SKILLS

SOCIAL STUDIES SKILLS

Search Action				Job Acquisition Development				Information Analysis				Social Studies Application				Fun... Social St...			
Investigate benefits of a career field/occupation				Master specific job task/procedure	●			Collect/record data				Investigate/apply U.S. history				Practice responsible personal economics			
Compare/evaluate career options				Fill in job-related applications				Interpret graphical information				Investigate/apply world history				Prepare a personal budget			
Develop personal career path				Write letter of application				Construct graphical information				Investigate/apply U.S. geography				Use credit responsibly			
Locate appropriate jobs				Write personal resume				Interpret maps/globes				Investigate/apply world geography				Practice good work ethics			
Analyze duties/requirements/benefits of specific job				Interview for a job	●			Interpret statistical information				Investigate/apply principles of government/politics				Participate in industrial relations			
				Apply business etiquette				Analyze/interpret demographic information				Investigate/apply principles of economics				Interact with people of different races/cultures			
				Practice good work habits/attitudes								Investigate/apply principles of ethics				Investigate/participate in government			
				Develop good personal presentation								Investigate/apply principles of psychology				Investigate/apply American legal practices			
				Develop self-confidence/esteem								Investigate/apply principles of sociology				Select/use sources of information on current events			
				Develop effective leadership								Investigate/apply cross-cultural studies				Analyze current events			
				Deal effectively with supervisors												Analyze consumer issues			
				Deal effectively with co-workers												Analyze social issues			
				Deal effectively with professional colleagues/associates												Analyze conservation/ecology issues			
				Deal effectively with customers/clients												Analyze social impact of science/technology			
																Analyze economic impact of science/technology			

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